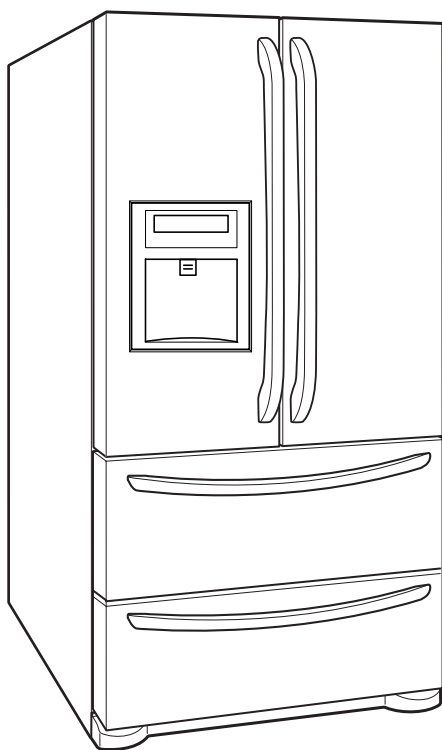




REFRIGERATOR

SERVICE MANUAL

CAUTION
BEFORE SERVICING THE UNIT,
READ THE SAFETY PRECAUTIONS IN THIS MANUAL.



Model #s:

795.78773.801
795.78779.801
795.78783.801
795.78789.801

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SAFETY PRECAUTIONS

Please read the following instructions before servicing your refrigerator.

1. Unplug the power before handling any electrical components.
2. Check the rated current, voltage, and capacity.
3. Take caution not to get water near any electrical components.
4. Use exact replacement parts.
5. Remove any objects from the top prior to tilting the product.

1. SPECIFICATIONS

1-1 DISCONNECT POWER CORD BEFORE SERVICING IMPORTANT – RECONNECT ALL GROUNDING DEVICES

All parts of this appliance capable of conducting electrical current are grounded. If grounding wires, screws, straps, clips, nuts or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

1-2 IMPORTANT NOTICE

This information is intended for use by individuals possessing adequate backgrounds of electrical, electronic and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

1-3 ELECTRICAL SPECIFICATIONS

Temperature Control (Freezer Compartment) ...-6°F to +8°F
Defrost Control.....Total Comp Running Time: 7 hrs~50 hrs
Defrost Thermostat.....46°F
Electrical Rating : 115VAC, 60Hz.....6.1 A
Maximum Current Leakage.....0.5 mA
Maximum Ground Path Resistance0.14 Ohms
Energy Consumption25 cu.ft. 547 kWh/yr (Energy Star)

1-4 NO LOAD PERFORMANCE CONTROL POSITION: MID/MID

And Ambient of:70°F90°F
Fresh Food, °F.....33°F to 41°F.....33°F to 41°F
Frozen Food, °F.....-4°F to +4°F.....-4°F to +4°F
Percent Running Time35%-45%50°F-70°F

1-5 REFRIGERATION SYSTEM

Minimum Compressor Capacity Vacuum 21 MIN.
Minimum Equalized Pressure
 @ 70°F 49 PSIG
 @ 90°F 56 PSIG
Refrigerant R134a 4.76 oz.
Compressor 950 BTU/hr

1-6 INSTALLATION

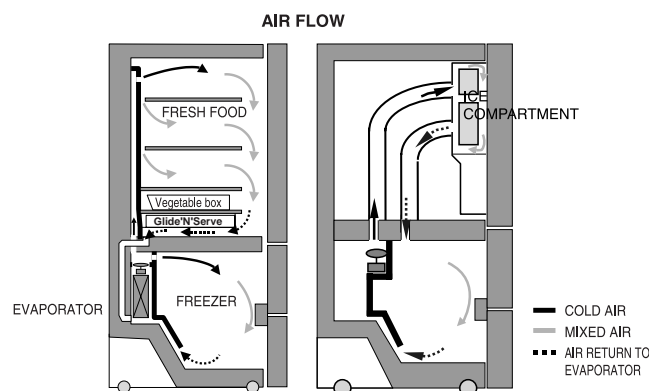
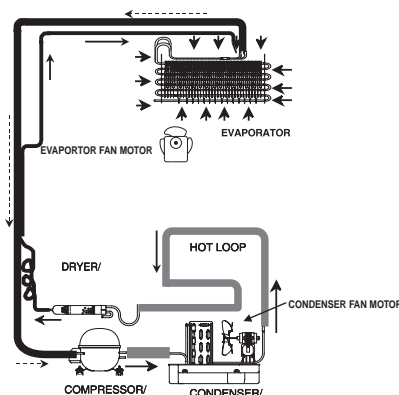
Clearance must be provided at top, sides and rear of the refrigerator for air circulation.

AT TOP 2 in
AT SIDES 1 in
AT REAR 1 in

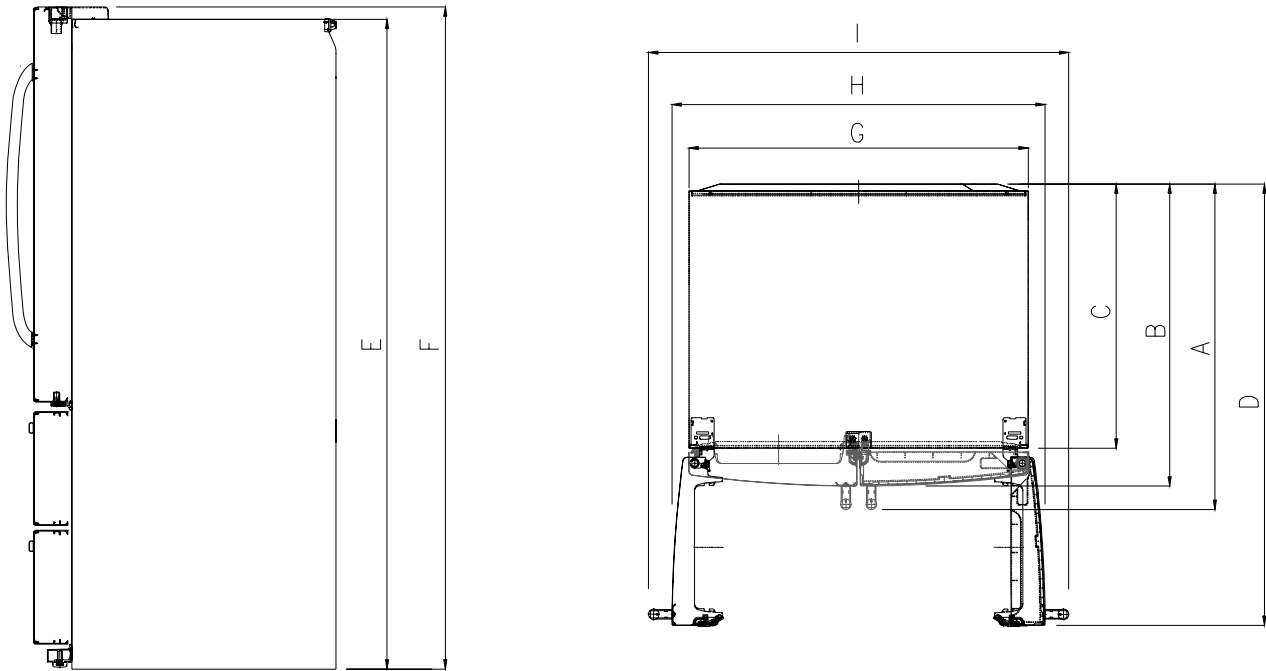
1-7 REPLACEMENT PARTS

	25 cuft
	795.78773.801 795.78783.801
	795.78779.801 795.78789.801
Relay	EBB44 3254 04
Defrost Thermostat.....	6615JB2005H
Defrost Heater	5300JK1005D
Evaporator Fan Motor.....	4681JK1004E
Capacitor (Running)	0CKZZJB2012K
	(0CKZZJB2014B)
	(0CKZZJB2012H)
Compressor (Hi-Side)	252JA1006N
Evaporator (Lo-Side)	5421JJ1007A
Condenser	ACG36653801
Dryer.....	5851JA2002P
Condenser Fan Motor	4681JB1029D
Temperature Control	ACQ36820503(WB)
	ACQ36820505(STS)
Main Control	EBR41956408
Ice Fan Motor.....	EAU36179303

1-8 AIR FLOW / CIRCULATION D'AIR

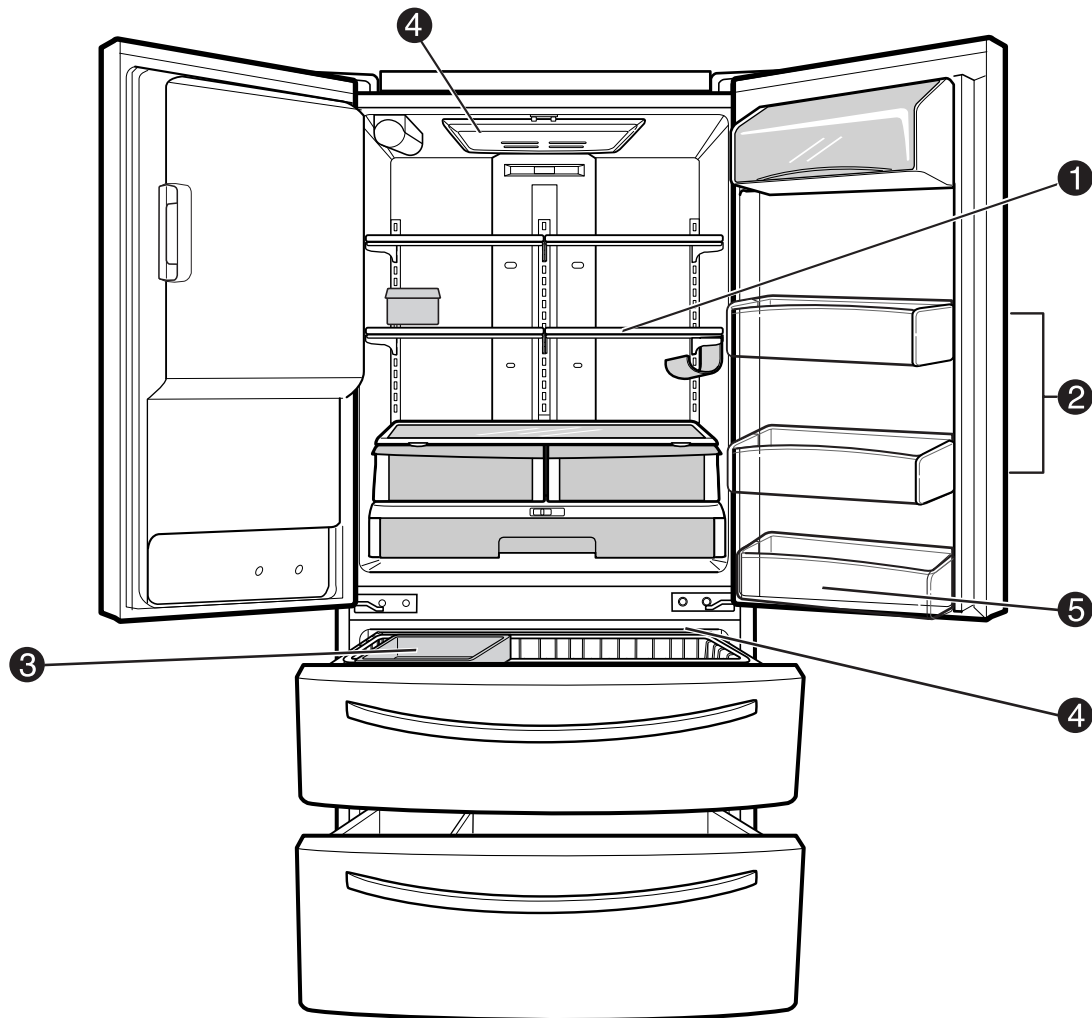


1-9 DIMENSIONS



Description		795.787**, 795.785**
Depth w/ Handles	A	34 1/4 in.
Depth w/o Handles	B	31 3/4 in.
Depth w/o Door	C	27 7/8 in.
Depth (Total with Door Open)	D	46 1/2 in.
Height to Top of Case	E	68 3/8 in.
Height to Top of Door Hinge	F	69 3/4 in.
Width	G	35 3/4 in.
Width (door open 90 deg. w/o handle)	H	39 1/4 in.
Width (door open 90 deg. w/ handle)	I	44 1/4 in.

2. PARTS IDENTIFICATION



❶ ADJUSTABLE REFRIGERATOR SHELVEING

The refrigerator compartment shelves are adjustable to allow flexibility for storage needs.

❷ MODULAR DOOR BINS

Three interchangeable bins can be arranged to suit your storage needs.

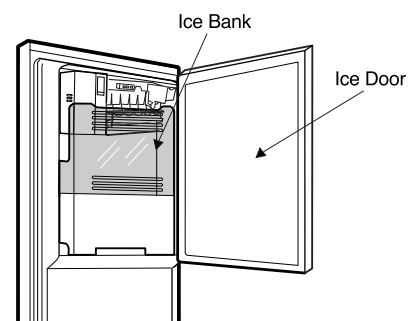
❸ REMOVABLE ICE STORAGE BIN

The ice storage bin can be removed to fill ice buckets, coolers, or pitchers.

❹ INTERIOR LAMPS

Two separate LED arrays light the freezer and refrigerator interiors.

❺ FIXED DOOR BIN



3. DISASSEMBLY

3-1 REMOVING AND REPLACING REFRIGERATOR DOORS

● Removing Refrigerator Door

▲ **CAUTION:** Before you begin, unplug the refrigerator. Remove food and bins from doors.

► Left Door -FIG. 2

1. Disconnect water supply tube by pushing back on the disconnect ring (4).-FIG. 1
2. Open door. Loosen top hinge cover screw (1).
- Use flat tip screwdriver to pry back hooks on front underside of cover (3). Lift up cover.
3. Disconnect door switch wire harness (2). Remove cover.
4. Pull out the tube.
5. Disconnect the three wire harnesses (5). Remove the grounding screw (6).
6. Rotate hinge lever (7) counterclockwise. Lift top hinge (8) free of hinge lever latch (9).

▲ **CAUTION:** When lifting hinge free of latch, be careful that door does not fall forward.

7. Place door, inside facing up, down onto a non-scratching surface.

► Right Door -FIG. 3

1. Open door. Loosen top hinge cover screw (1). Lift up cover (3).
2. Disconnect door switch wire harness (2). Remove cover.
3. Disconnect wire harness (5).
4. Rotate hinge lever (6) clockwise. Lift top hinge (7) free of hinge lever latch (8).

▲ **CAUTION:** When lifting hinge free of latch, be careful that door does not fall forward.

5. Lift door up from middle hinge pin (9).
6. Place door, inside facing up, down onto a non-scratching surface.

Figure 2

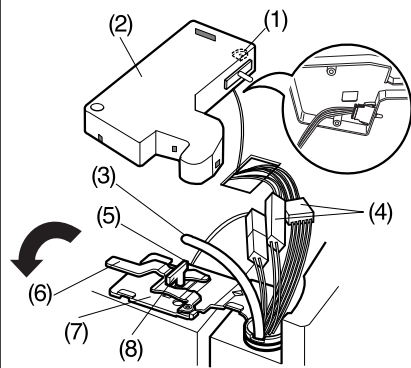


Figure 3

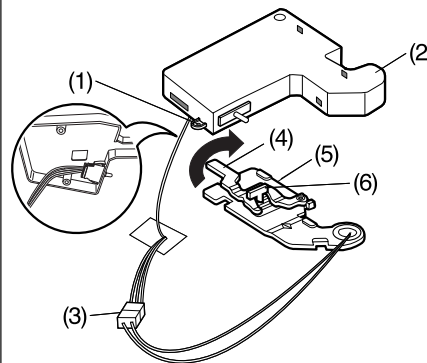
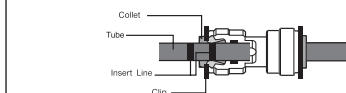
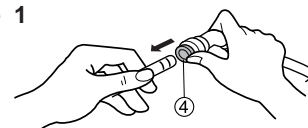


Figure 1



- 1) Insert the tube until you can see only one of the lines printed on the tube.
- 2) After inserting, pull the tube to ascertain that it is secure.
- 3) Assemble clip.



3-2 DOOR

● Door Gasket Removal

1. Remove door frame cover

Starting at top of cover and working down, snap cover out and away from door.

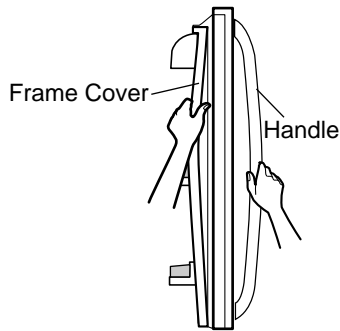


Figure 1

2. Remove gasket bracket clips

There are two clips on each door. Start bracket removal near one of the middle clips.

- 1) Pull gasket back to expose gasket bracket clip and door frame.
- 2) Insert a flat tip screwdriver into seam between gasket bracket and door frame and pry back until clips snap out.
- 3) Continue prying back along seam until all clips snap out.

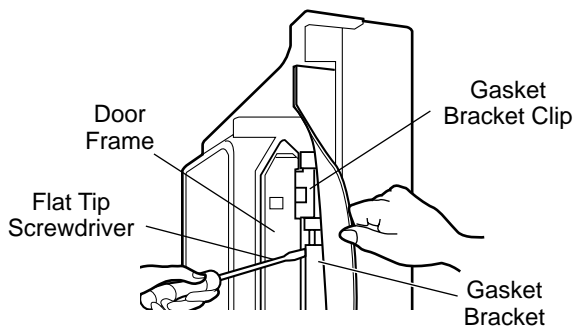


Figure 2

3. Remove gasket

Pull gasket free from gasket channel on the three remaining sides of door.

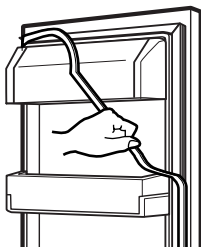


Figure 3

● Door Gasket Replacement

1. Insert gasket bracket clips

- 1) Insert gasket bracket edge beneath door frame edge.
- 2) Turn upper gasket bracket spring so that the spring ends are in the door channel.
- 3) Push in clip until you hear it snap securely into place.

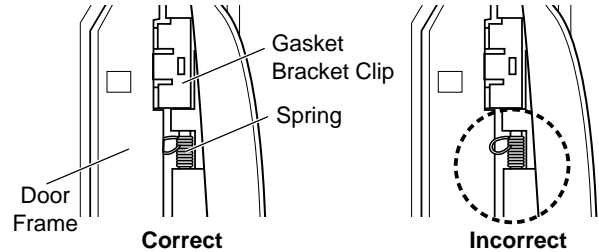


Figure 4

- 4) Push in remaining clip until you hear it snap securely into place.

Note: Make sure that no part of gasket bracket edge protrudes from beneath door frame edge.

2. Insert gasket into channel

- 1) Snap gasket assembly into the door bracket.

<Inserting the Gasket Assembly into the Bracket Door>

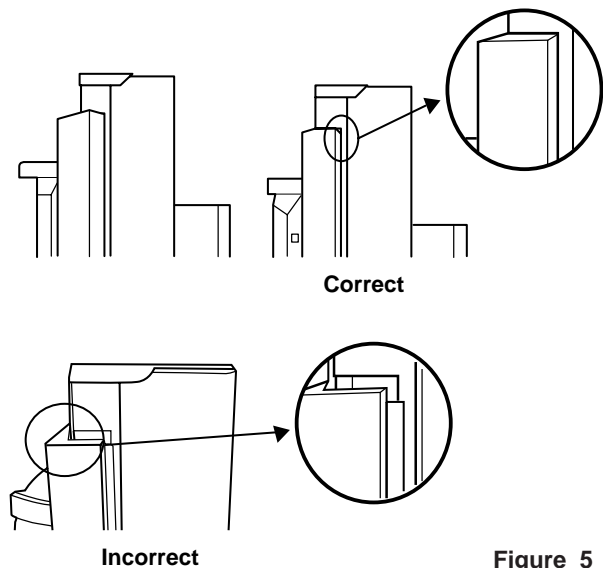


Figure 5

- 2) Press gasket into channels on the three remaining sides of door.

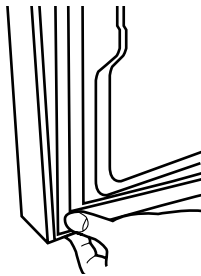


Figure 6

3. Replace door frame cover

Starting at top of cover and working down, snap cover back into door.

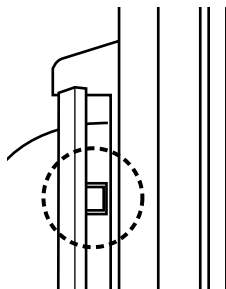
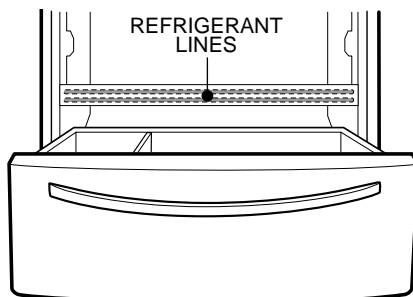


Figure 7

⚠ CAUTION

- DO NOT ATTEMPT TO REMOVE THE MULLION BETWEEN THE TWO DRAWERS. THERE IS A HOT GAS HEAT LOOP (REFRIGERANT LINES) THAT RUNS THROUGH THE MULLION.
- The rear panel can be easily removed after removing the left and right upper door supports. The panel can then be slid through the upper door opening above the mullion!



3-3 DOOR ALIGNMENT

If the space between your doors is uneven, follow the instructions below to align the doors:

1. With one hand, lift up the door you want to raise at middle hinge.
2. With other hand, use pliers to insert snap ring as shown.
3. Insert additional snap rings until the doors are aligned. (Three snap rings are provided with unit.)

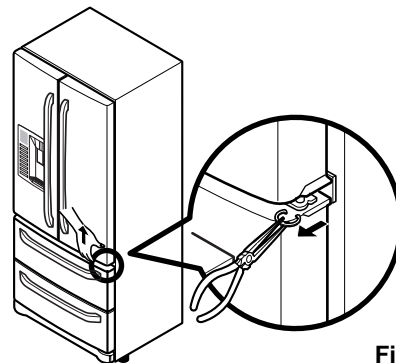


Figure 8

3-4 FAN AND FAN MOTOR(EVAPORATOR)

1. Remove the freezer shelf. (If your refrigerator has an icemaker, remove the icemaker first)
2. Remove the plastic guide for slides on left side by unscrewing phillips head screws.
3. Remove the grille by removing one screw and pulling the grille forward.
4. Remove the Fan Motor assembly by loosening 2 screws and disassembling the shroud.

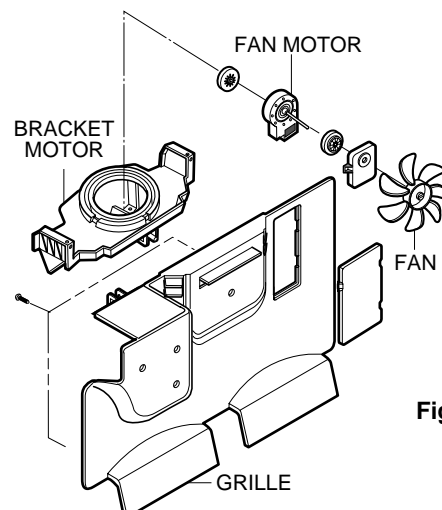


Figure 9

5. Pull out the fan and separate the Fan Motor and Bracket.

* Ice Fan Scroll Assembly Replacement

- 1) Remove the plastic guide for slides on left side by unscrewing phillips head screws.
- 2) Pull the grille forward as shown in the second picture.
- 3) Disconnect wire harness of the grille
- 4) Remove the scroll assembly by loosening all screws



(1)



(2)



(3)



(4)

3-5 DEFROST CONTROL ASSEMBLY

Defrost Control assembly consists of Defrost Sensor and FUSE-M.

The Defrost Sensor works to defrost automatically. It is attached to the metal side of the Evaporator and senses its temperature. At 72°C, it turns the Defrost Heater off.

Fuse-M is a safety device for preventing over-heating of the Heater when defrosting.

1. Pull out the grille assembly. (Figure 10)
2. Separate the connector with the Defrost Control assembly and replace the Defrost Control assembly after cutting the Tie Wrap. (Figure 11)

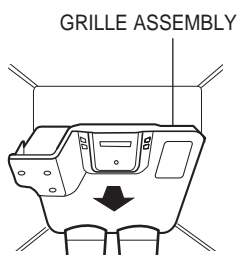


Figure 10

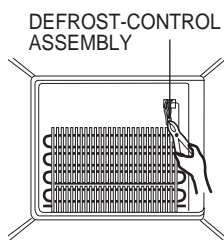


Figure 11

3-6 LAMP

Unplug Refrigerator, or disconnect power at the circuit breaker.

If necessary, remove top shelf or shelves.

3-6-1 Refrigerator Compartment Lamp

- 1) Release 2 screws.
- 2) Hold both ends with your both hands and pull it downward to remove it.



Figure 12

- 3) Use a flat tool as shown below to remove the cover lamp.

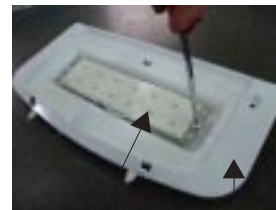


Figure 13

- 4) As shown below, use a flat tool to remove the cover lamp.



Cover, Lamp



LED, Assembly Case Lamp

Figure 14

3-6-2 Freezer Compartment Lamp

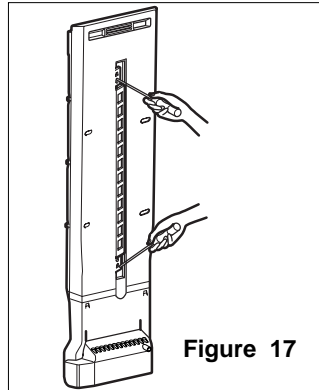
1. Unplug refrigerator power cord from outlet.
2. Remove screw with driver.
3. Grasp the cover Lamp, pull the cover downward.



Figure 15

3-7 MULTI DUCT

1. Remove the upper and lower Caps by using a flat screwdriver, and remove 2 screws. (Figure 17)
2. Disconnect the lead wire on the bottom position.



3-8 MAIN PWB

- 1) Loosen the 4 screws on the PWB cover.



- 2) Remove the PWB cover



- 3) Disconnect wire harness and replace the main PWB in the reverse order of removal.



3-9 DISPENSER

- 1) Disconnect funnel and button assembly by pulling down and forward.



- 2) Hold the left and right side of the "Cover Assembly, dispenser" as shown in the picture, and pull and remove it. The cover dispenser is attached with a hook.



⚠ CAUTION: When replacing the dispenser cover in the reverse order of removal, be careful that the lead wire does not come out and the water tube is not pinched by the dispenser cover, as shown in the picture below.

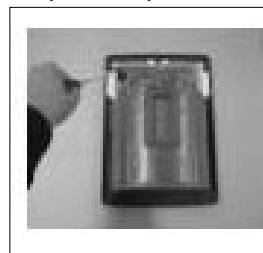


3-10 DISPLAY PWB REPLACEMENT

- 1) Pull up and out on the dispenser cover to remove.



- 2) Follow the steps in the pictures



3-11 FUNNEL REPLACEMENT

- 1) Pull up and out on the dispenser cover to remove.
- 2) Disconnect the wire harness.
- 3) Replace in reverse order.

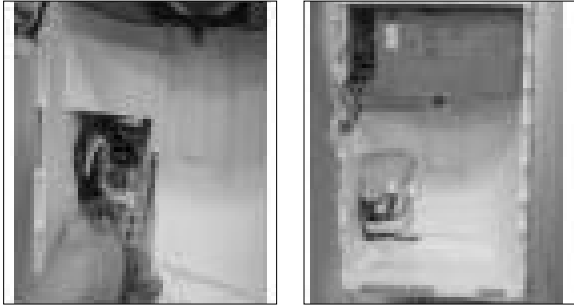


3-12 SUB PWB FOR WORKING DISPENSER

- 1) Loosen the screw on the sub PWB.



- 2) Pull the sub PWB down.
- 3) Disconnect the wire harness and replace the sub PWB in the reverse order of removal.



3-13 DUCT DOOR REPLACEMENT

- 1) Pull up and out on the dispenser cover to remove.
- 2) Disconnect the wire harness.
- 3) Remove the funnel
- 4) Replace in reverse order.



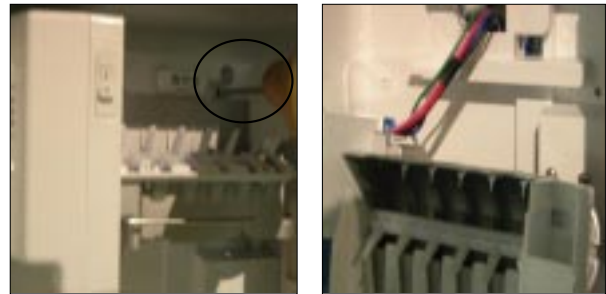
3-14 ICE CORNER DOOR REPLACEMENT

- 1) Loosen the front screw as shown in the picture.
- 2) Lift up the hinge with one hand.
- 3) Pull out the Ice Corner Door with the other hand.



3-15 ICEMAKER ASSEMBLY

- 1) Loosen two screws as shown in the first picture.



- 2) Disconnect the wire harness & ground screw replace the icemaker assembly in the reverse order of removal.



- 3) It separates a ground connection screw.



3-17 AUGER MOTOR COVER

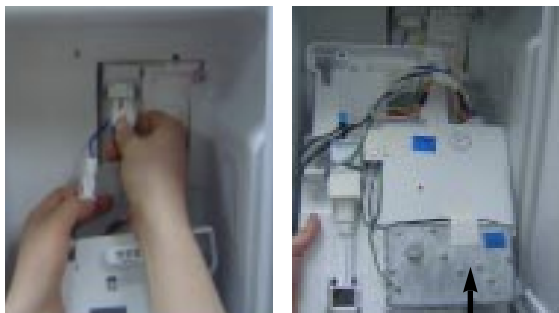
- 1) After removing the icemaker remove the (5) stainless screws holding the auger motor cover, shown in the pictures below.



- 2) Grip the bottom of motor cover assembly and pull out it.



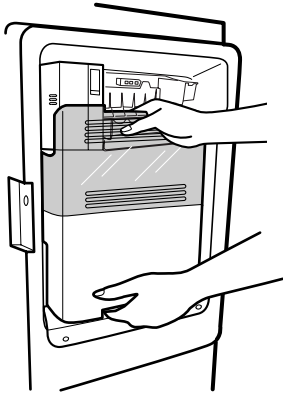
- 3) Disconnect wire harness of motor cover assembly.
There is a auger motor on the back, as shown in the picture.



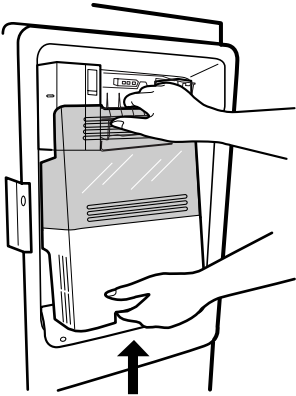
Auger Motor

3-20 HOW TO REMOVE A DOOR ICE BIN

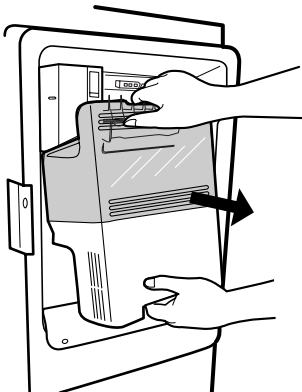
1) Grip the handles, as shown in the picture.



2) Lift the lower part slightly.

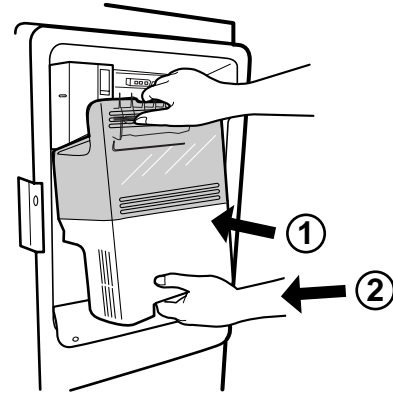


3) Take the Ice Bin out slowly.

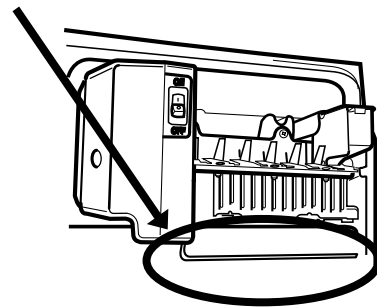


3-21 HOW TO INSERT A DOOR ICE BIN

1) Insert the Ice Bin, slightly tilting it to avoid touching the Icemaker. (especially, ice maker lever)



※ Insert the ice bucket carefully avoid contacting the automatic shut off arm.



3-22 HOW TO REMOVE AND REINSTALL THE PULLOUT DRAWER

3-22-1 Follow Steps to Remove

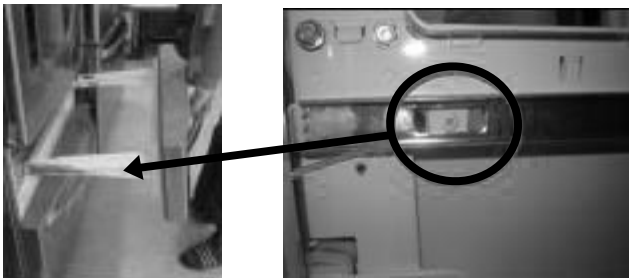
Step 1) Open the freezer door.



Step 2) Remove the lower basket.



Step 3) Remove the two screws from the guide rails (one from each side).



Step 4) Lift the freezer door up to unhook it from the rail support and remove.
Pull both rails to full extension.

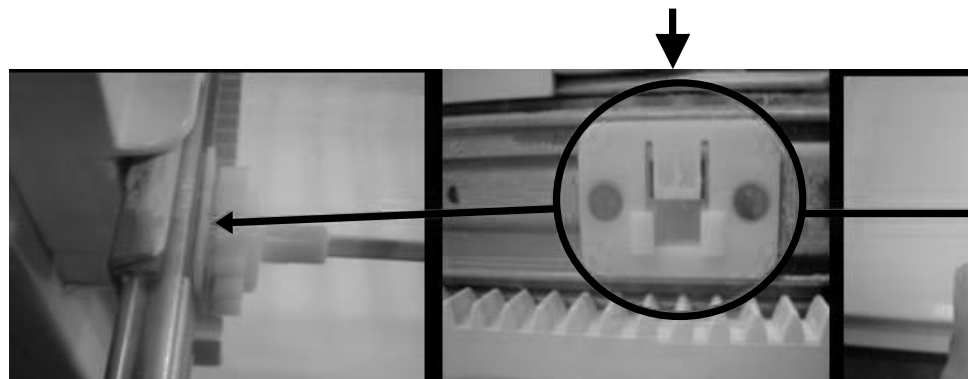


Step 5) First: Remove the gear from the left side first by releasing the tab behind the gear, place a screwdriver between the gear and the tab and pull up on the gear.

Second: Remove the center rail.

Third: Remove the gear from the right side by following the same steps for the left side.

NOTE: THIS TAB MUST BE PUSHED IN TO RELEASE THE GEAR.



3-22-2 Follow Steps to Reinstall

Step 1) Reinstall the right side gear into the clip.



Step 2) Insert the rail into the right side gear. Gears do **not** need to be perpendicular to each other.



Step 3) Insert the rail into the left side gear, and insert the gear into the clip.



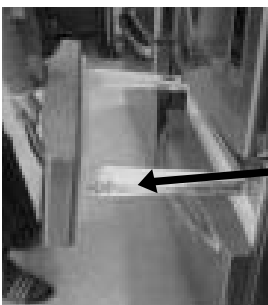
Step 4) The rail system will align itself by pushing the rails all the way into the freezer section. Pull the rails back out to full extension.



Step 5) Reinstall the freezer door by inserting the rail tabs into the guide rail.



Step 6) Reinstall the two screws into the guide rails (one from each side).

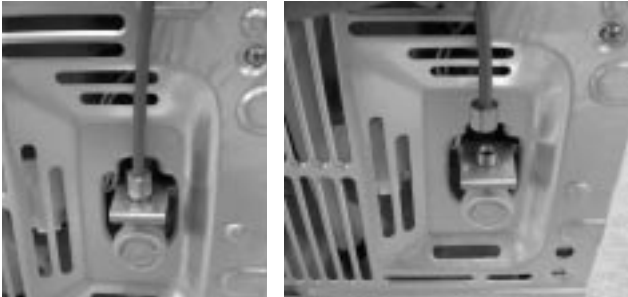


Step 7) Reinstall the lower basket, and close the freezer door.

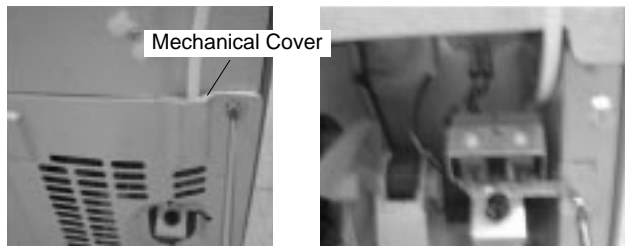


3-23. WATER VALVE DISASSEMBLY METHOD

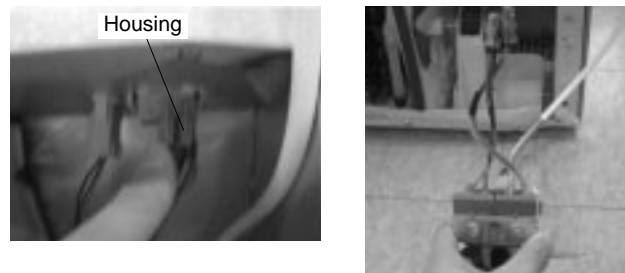
- 1) Turn off the water. Then separate the water line from the valve.



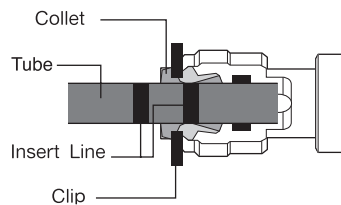
- 2) Separate the Mechanical Cover and Valve Screw.



- 3) Separate the housing and pull out the valve.

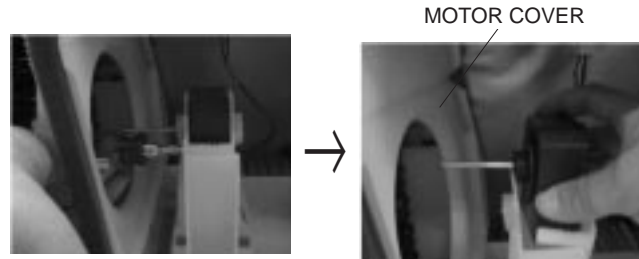


- 4) Lay a dry towel on the floor and get ready to spill water from the water filter. Pull out the Cilp. Then press te collet to separate the tube from the connector and pour out the water until emptied.

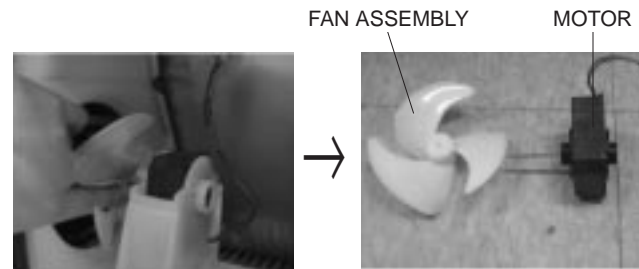


3-24. FAN AND FAN MOTOR DISASSEMBLY METHOD

- 1) Using a short screwdriver, loosen one SCREW in DRAIN PIPE ASSEMBLY and one connected to the MOTOR COVER.



- 2) Pull and separate the FAN ASSEMBLY and MOTOR turning counterclockwise based on the MOTOR SHAFT.

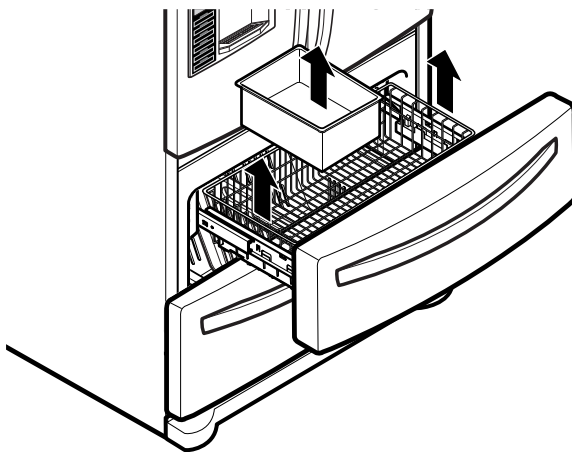


The assembly is in the reverse order of the disassembly and take special care for the following details.

1. Be careful not to bend the tube during assembly.
2. Press the WATER DISPENSER button until water pours out and check for leakage in the CONNECTOR TUBE (It differs by the water pressure but usually takes about 2 minutes until water pours out.)

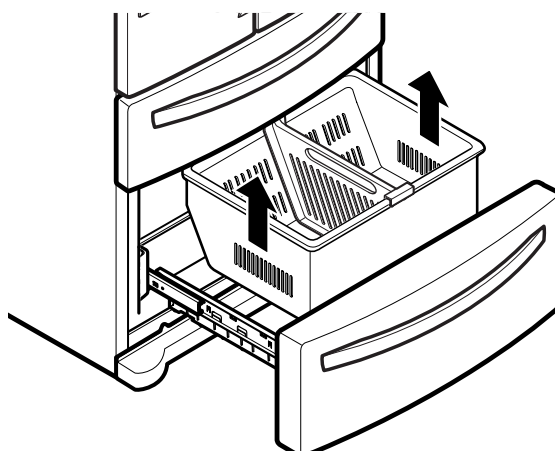
3-25 TOP DRAWER

To remove the freezer drawer, pull the drawer open to full extension. Remove the drawer and Ice Bin lifting the basket from the rail system.



3-26 BOTTOM DRAWER

To remove the freezer drawer, pull the drawer open to full extension. Remove the lower DuraBase[®] basket by lifting the basket from the rail system.



4. ADJUSTMENT

4-1 COMPRESSOR

4-1-1 Role

The compressor intakes low temperature and low pressure gas from the evaporator of the refrigerator and compresses this gas to high-temperature and high-pressure gas. It then delivers the gas to the condenser.

4-1-2 Composition

The compressor includes overload protection. The PTC starter and OLP (overload protector) are attached to the outside of the compressor. Since the compressor is manufactured to tolerances of 1 micron and is hermetically sealed in a dust and moisture-free environment, use extreme caution when repairing it.

4-1-3 Note for usage

- (1) Be careful not to allow over-voltage and over-current.
- (2) If compressor is dropped or handled carelessly, poor operation and noise may result.
- (3) Use proper electric components appropriate to the particular compressor in your product.
- (4) Keep compressor dry.
If the compressor gets wet (in the rain or a damp environment) and rust forms in the pin of the Hermetic Terminal, poor operation and contact may result.
If the hermetic connector rusts out or fails, refrigerant and oil will be expelled into the contact area, probably resulting in smoke and fire.
- (5) When replacing the compressor, be careful that dust, humidity, and soldering flux don't contaminate the inside of the compressor. Contamination in the cylinder may cause noise, improper operation or even cause it to lock up.

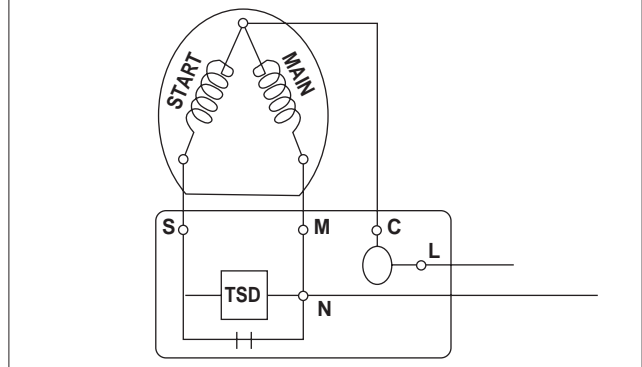
4-2 TSD STARTER

- The TSD must not be applied to refrigeration systems with defrosting electrical resistance or any other component in parallel to the thermostat. Systems with this configuration can maintain a residual voltage over the compressor when the thermostat is opened, obstructing the proper functioning of the TSD. It is vital for the TSD circuit and compressor to remain completely de-energized after opening the thermostat.
- Use of the fixing clamp is essential, as this prevents disconnection or bad TSD contact in relation to the compressor as well as to running capacitor in relation to the TSD. The ones that assemble it have to guarantee a perfect connection between the parts. Bad contacts and sparking can burn out the electronic circuit.
- The electronic circuit was designed taking the mandatory use of the running capacitor into consideration.
The 115V version is rectangular box, assembling directly onto the TSD body.
- The plastic box was projected to offer protection against contamination and mechanical shock normally present in refrigeration system production lines.
- The TSD's internal components may undergo degradation when in contact with chemical elements such as Cl_2 , H_2S , NH_3 , SO_x , NO_x . Some plastic isolation of cables may release chemical elements when submitted to high temperature conditions. Thus, check if the isolation of the cables used on the terminal board are in accordance with this recommendation.

4-2-3 TSD-Applied circuit diagram

● Starting method for the motor

ELECTRICAL AND DIMENSION DIAGRAM ELECTRICAL CONNECTION DIAGRAM



4-2-4 Reference

- The TSD was designed for the operation with a run capacitor and Embraco domestic compressor; any other application must be previously evaluated by Embraco's technical team.
- Embraco reserves the right to check the customer's handling of the manufacturing / assembly process, indicating possible adjustments should any be required.
- After replacement, the compressor and its accessories must have proper processing, and the components must be recycled according to the material group (ferrous, non-ferrous, polymers, oils, ...) directives. These recommendations are intended to minimize the adverse impacts that may be caused to the environment.

4-3 OLP (OVERLOAD PROTECTOR)

4-3-1 Definition of OLP

- (1) OLP (OVERLOAD PROTECTOR) is attached to the Compressor and protects the Motor by opening the circuit to the Motor if the temperature rises and activating the bimetal spring in the OLP.
- (2) When high current flows to the Compressor motor, the Bimetal works by heating the heater inside the OLP, and the OLP protects the Motor by cutting off the current flowing to the Compressor Motor.

4-3-2 Role of the OLP

- (1) The OLP is attached to the Sealed Compressor used for the Refrigerator. It prevents the Motor Coil from being started in the Compressor.
- (2) For normal operation of the OLP, do not turn the Adjust Screw of the OLP in any way.

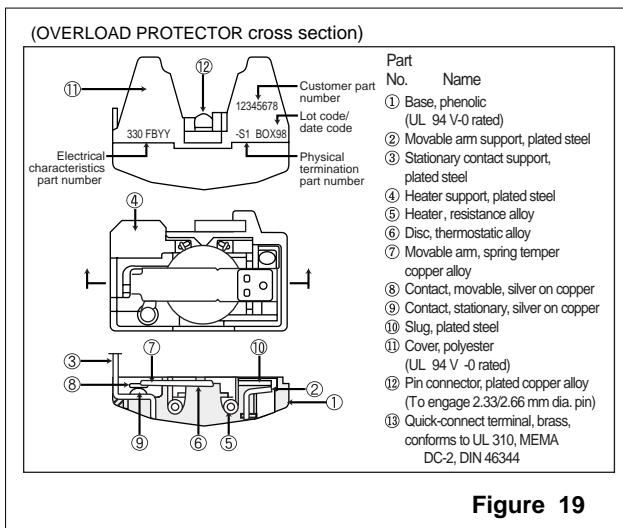
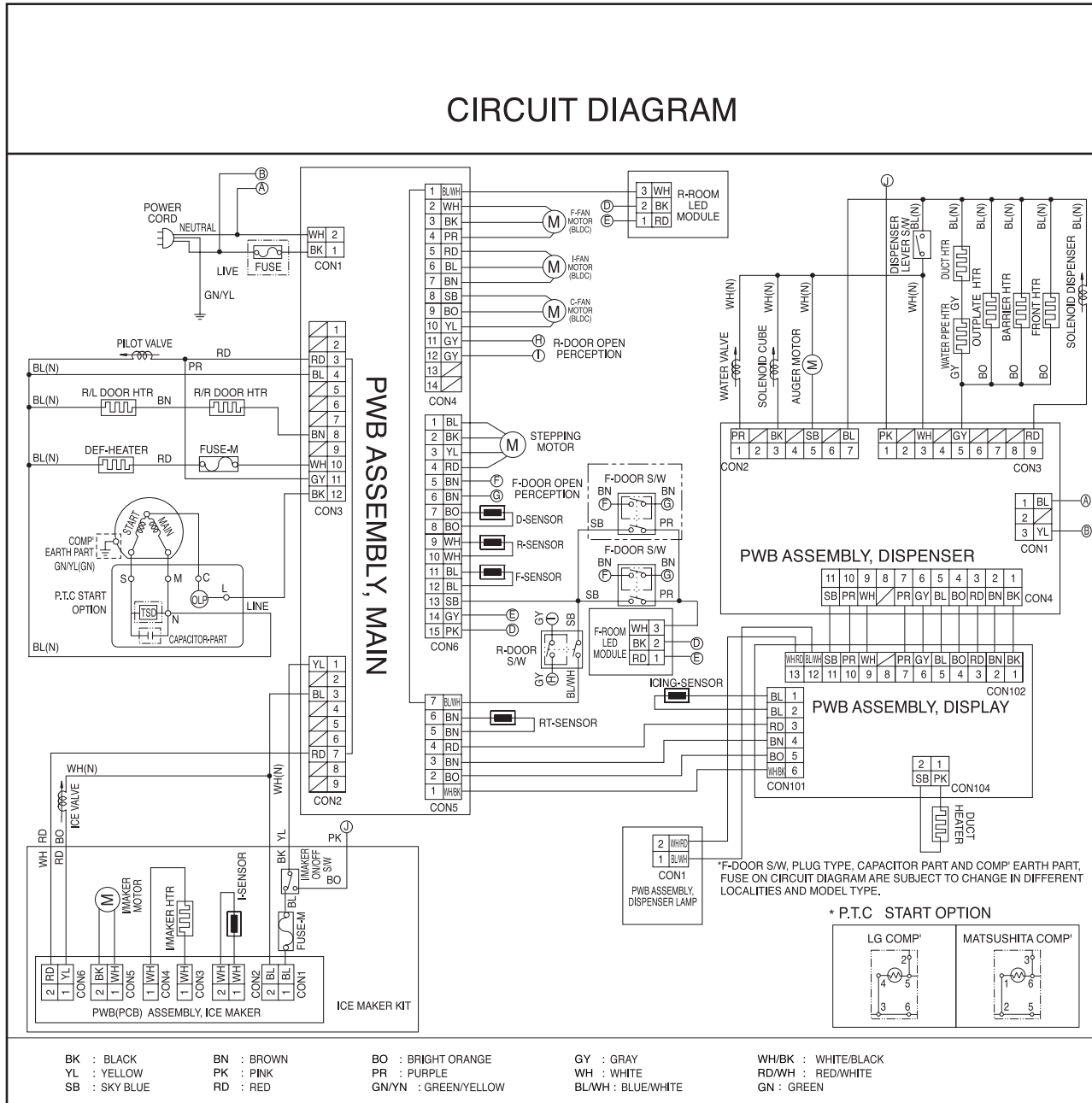


Figure 19

5. CIRCUIT DIAGRAM



6. TROUBLESHOOTING

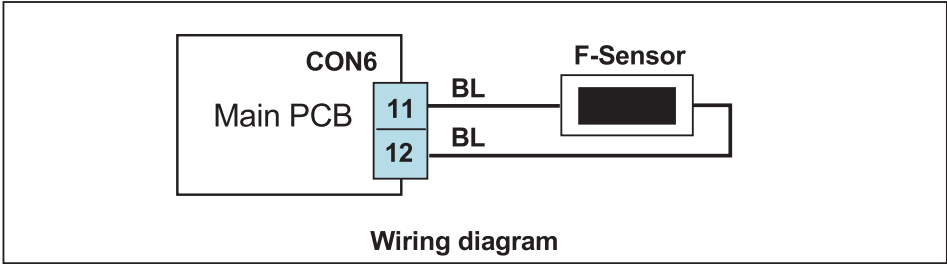
6-1. Error Code Summary

⚠WARNING : When you check the Resistance values, be sure to turn off the power.
And wait for the voltage-discharge sufficiently.

NO	Error Detection Category	Error Display		Error Generation Factors	Remark
		Freezer Temperature	Ref. Temperature		
1	Normality			None	Normal operation of Display
2	Freezer Sensor Error	Er	FS	Short or Disconnection of Freezer Sensor	Check each sensor and its connector.
3	Refrigerator Sensor Error	Er	rS	Short or Disconnection of Refrigerator Sensor	
4	Defrosting Sensor Error	Er	dS	Short or Disconnection of Defrosting Sensor	
5	Icing Sensor Error	Er	IS	Short or Disconnection of Icing Sensor	
6	Poor Defrosting	Er	dH	Even though it is passed 1 hour since then Defrosting , if Defrosting sensor is not over 8°C, it is caused	Temperature Fuse Disconnection, Heater disconnection, DRAIN Jam, Poor Relay for Heater
7	Abnormality of BLDC FAN Motor for Ice Making	Er	IF	It is caused when feedback signal isn' t over 65 seconds during BLDC FAN motor operating	Poor BLDC Motor connection, DRIVE IC, and TR
8	Abnormality of BLDC FAN Motor for Freezer	Er	FF	It is caused when feedback signal isn' t over 65 seconds during BLDC FAN motor operating	Poor BLDC Motor connection, DRIVE IC, and TR
9	Abnormality of BLDC FAN Motor for Mechanic Room	Er	CF	It is caused when feedback signal isn' t over 65 seconds during BLDC FAN motor operating	Poor BLDC Motor connection, DRIVE IC, and TR
10	Communication Error	Er	CO	Communication Error between Micom of Main PCB and Display Micom	Poor Communication connection,Poor TR of Transmitter and Receiver Tx/Rx between display and main board.

6-2. Troubleshooting With Error

Freezer Sensor Error



Is Er-FS displayed?

The image shows a blue digital display with the text 'Er FS' in white.

Yes

Is the connection loose?

Yes

Reconnect

The image shows a close-up of the wiring connections at the CON6 connector, with several colored wires (red, yellow, blue, white) visible.

No

Power Off

Tip : To protection of MICOM

Disconnect CON6 and measure the value. Is resistance value between pins 11 & 12 of CON6 as below? (BL to BL)

No

Replace F-sensor

The image shows a close-up of the CON6 connector with red arrows pointing to pins 11 and 12.

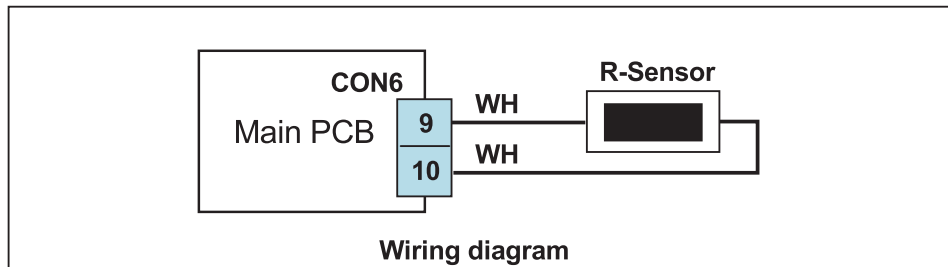
Test Point	Result
Pin11 to pin12	1.4 ~ 120 kΩ

Yes

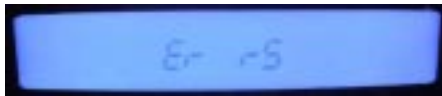
Reconnect CON6 and Power ON

If the ER-FS appears, Replace the main PCB. Otherwise, explain to the customer!

Refrigerator Sensor Error

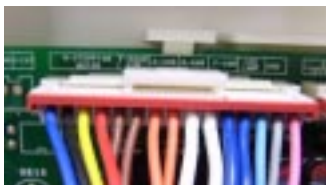


Is Er-FS displayed?



Yes

Is the connection loose?



No

Power Off

Tip : To protection of MICOM

Yes

Reconnect

Disconnect CON6 and measure the value. Is resistance value between pins 9 & 10 of CON6 as below? (WH to WH)

No

Replace R-sensor

pin9 pin10



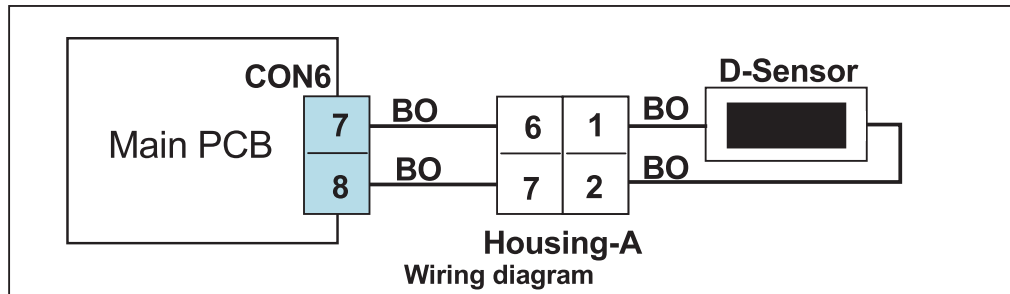
Test Point	Result
Pin9 to pin10	6 ~ 300 kΩ

Yes

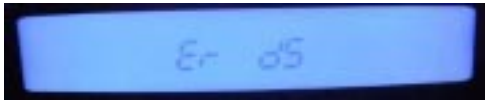
Reconnect CON6 and Power ON

If the ER-rS appears, Replace the main PCB. Otherwise, explain to the customer!

Defrost Sensor Error

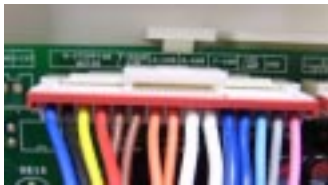


Is Er-dS displayed?



Yes

Is the connection loose?



Yes

Reconnect

No

Power Off

Tip : To protection of MICOM

Disconnect CON6 and measure the value. Is resistance value between pins 7 & 8 of CON6 as below? (BO to BO)

pin7 pin8



No

Replace D-sensor

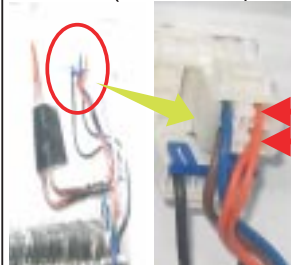
Test Point	Result
Pin7 to pin8	6 ~ 300 kΩ

Yes

Is resistance value between pins 1 & 2 of Housing- A as below? (BO to BO)

No

Replace a D-Sensor



pin2
pin1

Checking Open or Short of wire

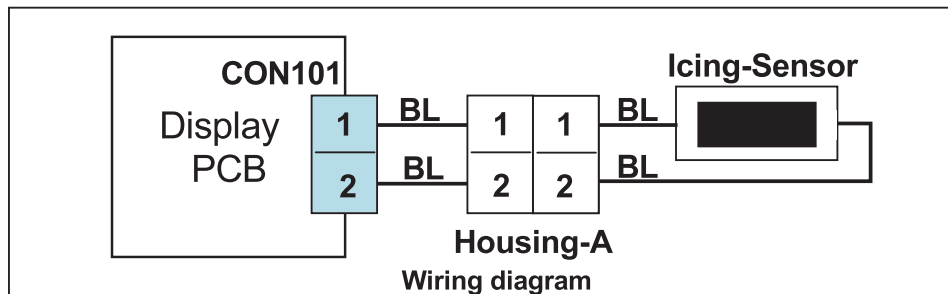
Test Point	Result
Pin1 To pin2	1.156 ~ 141.5 kΩ

Yes

Reconnect and Power ON

If the ER-dS appears, Replace the main PCB.(Position No:500A)
Otherwise, explain to the customer!

Icing Room Sensor Error



Is Er-IS displayed?



Yes

Is the connection loose?

Yes

Reconnect

Display PCB



Inner of Icing door

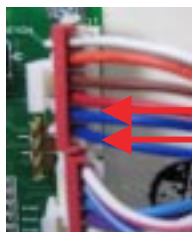


No

Disconnect CON101 and measure the value. Is resistance value between pins 1 & 2 of CON101 as below? (BL to BL)

No

Replace Display PCB
(Position No:501A)



pin2 BL
pin1 BL

Icing room Sensor Resistance

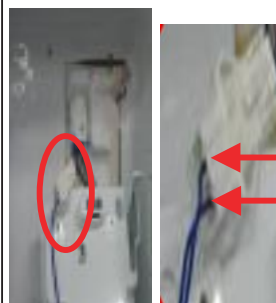
Test Point	Result
pin1 To pin2	1.156 ~ 141.5 kΩ

Yes

Is resistance value between pins 1 & 2 of Housing- A as below? (BL to BL)

No

Replace the Icing-Sensor



Checking Open or Short of wire

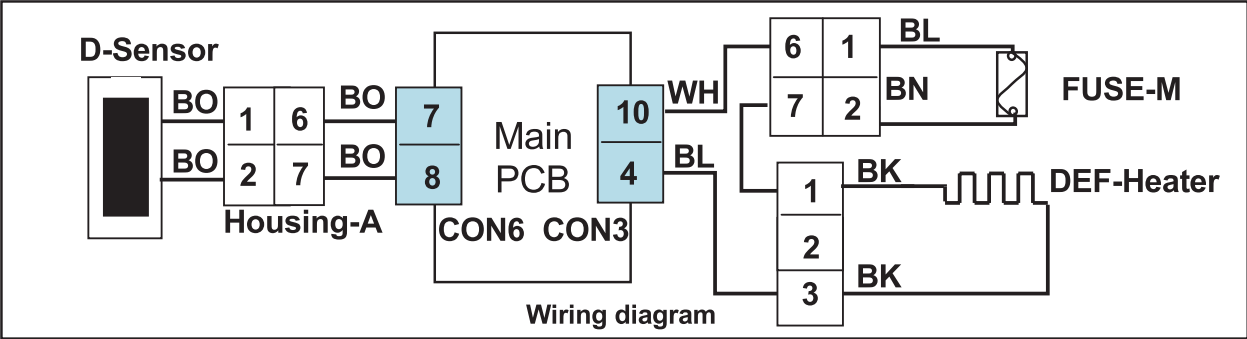
Test Point	Result
(1) To (2)	1.4 ~ 120 kΩ

Yes

Reconnect and Power ON

If the ER-IS appears,
Replace Main PCB
Otherwise, explain
to the customer!

Defrost Heater Error

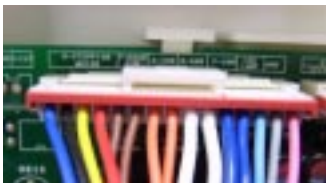


Yes

Is the connection loose?

Yes

Reconnect

**CON6**

CON3

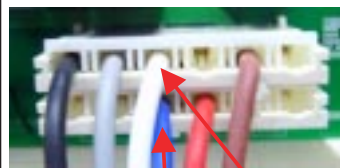
No

Enter the TEST 3 MODE

Is the voltage value between pins 10(**WH**) and 4 (**BL**) of CON3 115 V AC?

No

Replace
MAIN PCB
(Position No:
500A)



pin4 BL pin10 WH

Relay operation

Test Point	Result
pin4 To pin10	115 V

Yes

Reset TEST3 MODE(Normal)

Is the voltage value between pins 10 (**WH**) and 4 (**BL**) of CON3 0 V AC?

No

Replace
MAIN PCB
(Position No:
500A)



pin4 BL pin10 WH

Relay Open

Test Point	Result
Reset/Norm OP	0 ~ 2 V

Yes

Is the resistance value between pins 10(WH) And 4(BL) of CON3 like as below?

Yes

Normal



pin10 WH
pin4 BL

Resistance

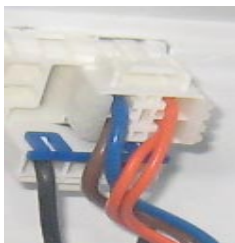
Test Point	Result
(1) To (2)	34 ~ 42 kΩ

No

Is the connection loose?

Yes

Reconnect



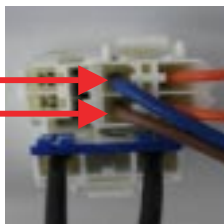
No

Is the resistance value of Fuse -M like as below?

No

Replace Fuse-M (Position No:400A)

(1) BL
(2) BN



Open or Short of Fuse-M

Test Point	Result
(1) To (2)	0 kΩ

Yes

Is the resistance value of heater like as below?

No

Replace Heater (Position No: 408A)



(1)(2)

Heater Resistance

Test Point	Result
(1) To (2)	34 ~ 42 kΩ

Yes

Is the resistance value of DEF-sensor like as below? It depends on the temperature.

No

Replace DEF-sensor



(1) BO
(2) BO

Defrost Sensor Resistance

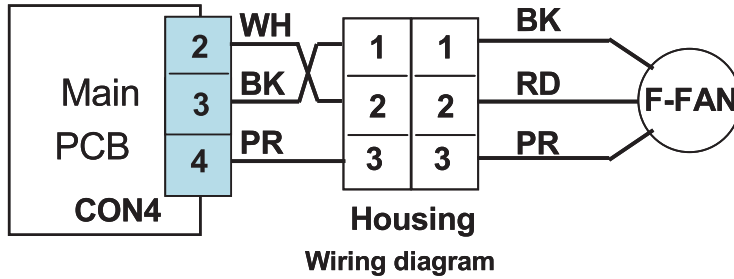
Test Point	Result	Test Point	Result
-30 °C	X29.3 kΩ	10 °C	X9.53 kΩ
-20 °C	76.96 kΩ	20 °C	X3.03 kΩ
-10 °C	47.34 kΩ	30 °C	8.896 kΩ
0 °C	30 kΩ	40 °C	6.201 kΩ

Yes

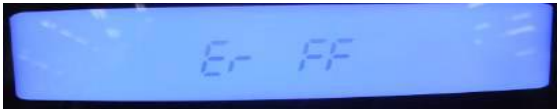
Explain to the customer!

: It can be occurred, when the gasket is not stuck to product or when you put the high temperature loads (hot foods) a lot in the product.

Freezer Fan Error



Is Er-FF displayed?



Yes

Is the connection loose?

Yes

Reconnect



No

Reset and Enter the TEST 1 MODE

Is the output voltage between pin2 and pin3 of CON4 like as below?

Pin2 WH Pin3 BK



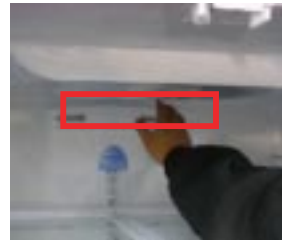
Freezer Fan Voltages

Test Point	Result
pin2 To pin3	12 ~ 16 V

Yes

Replace MAIN PCB (Position No: 500A)

Does the cold-air come out of the top of the main duct under Test1 mode ?



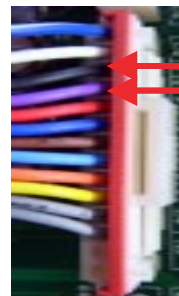
Yes

No

Check fan motor (Connector, Frozen, Locked) and replace.



Is the feedback voltage between pin3 and pin4 of CON4 like as below? (from motor to main board)



Pin3 BK
pin4 PR

Feedback Voltages

Test Point	Result
Pin3 To pin4	1 ~ 4 V

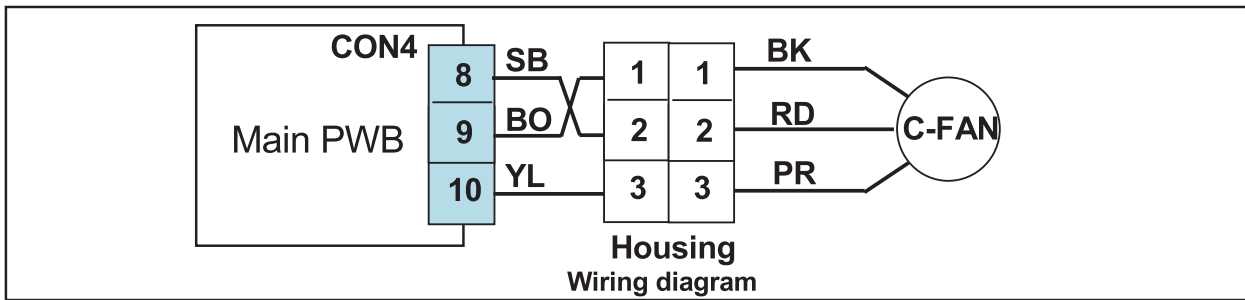
Yes

No

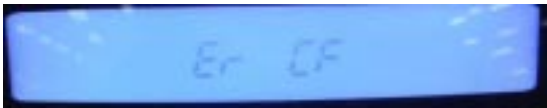
Replace MAIN PCB (Position No: 500A)

Explain to the customer!

Condenser Fan Error



Is Er-CF displayed?



Yes

Is the connection loose?

Yes

Reconnect



No

Reset and Enter the TEST 1 MODE

Is the output voltage between pin8 and pin9 of CON4 like as below?

NO

Replace MAIN PCB (Position No: 500A)

Pin7 SB Pin8 BO



Condenser Fan Voltages

Test Point	Result
pin8 To pin9	10 ~ 16 V

Yes

Is the condenser fan rotate under Test1 mode?

NO

Check fan motor (Connector, Locked, mouse) and replace. (Position No: 420A)



Yes

Is the feedback voltage between pin9 and pin10 of CON4 like as below? (from motor to main board)

No

Replace MAIN PCB (Position No: 500A)



Pin9 BO
Pin10 YL

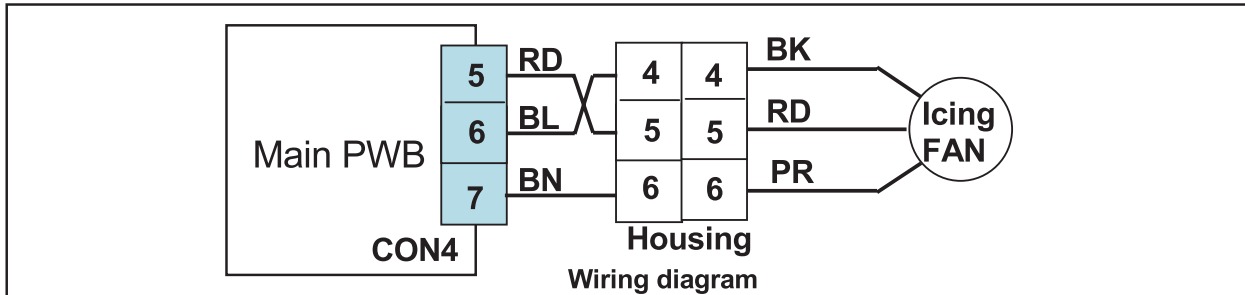
Feedback Voltages

Test Point	Result
Pin9 To pin10	1 ~ 4 V

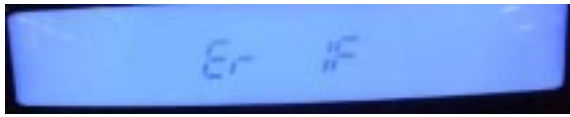
Yes

Explain to the customer!

Icing Room Fan Error



Is Er-IF displayed?



Yes

Is the connection loose?

Yes

Reconnect



No

Reset and Enter the TEST 1 MODE

Is the output voltage between pin5 and pin6 of CON4 like as below?

No

Replace MAIN PCB (Position No: 500A)

Pin5 RD Pin6 BL



Icing Fan Voltages

Test Point	Result
pin5 To pin6	10 ~ 16 V

Yes

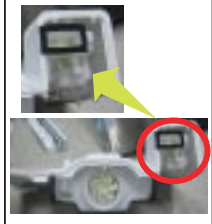
Does the cold-air come out of the side duct under the Test1 Mode?

No

Check fan motor (Connector, Frozen, Locked) and replace.



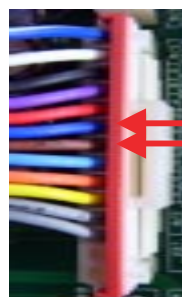
Yes



Is the feedback voltage between pin6 and pin7 of CON4 like as below? (from motor to main board)

No

Replace MAIN PCB (Position No: 500A)



Pin6 BL
Pin7 BN

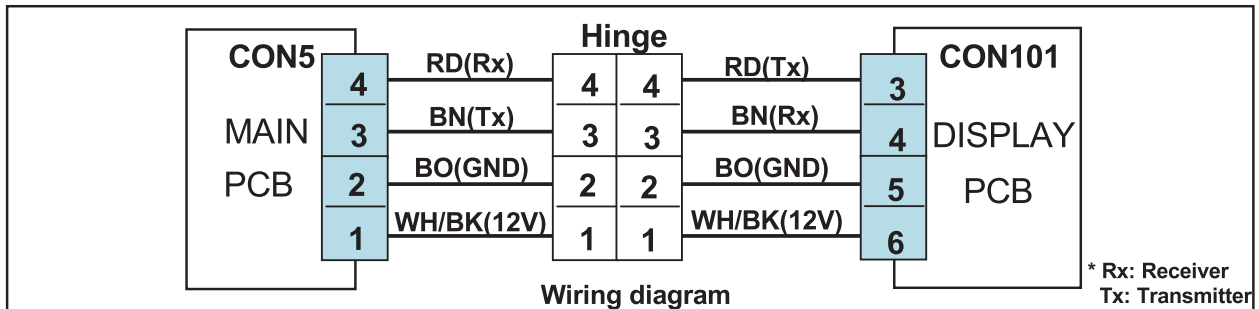
Feedback Voltages

Test Point	Result
Pin6 To pin7	1 ~ 4 V

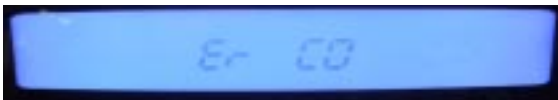
Yes

Explain to the customer!

Communication Error



Is Er-CO displayed?



Yes

Display PCB

Is the connection loose?



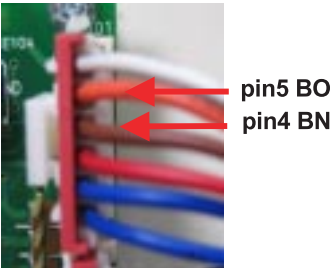
No

Yes

Reconnect

Display PCB

Is the voltage between pins 4 and pin 5 of CON101?



Receiver fail Voltages

Test Point	Result
pin4 To pin5	0 V or 5 V

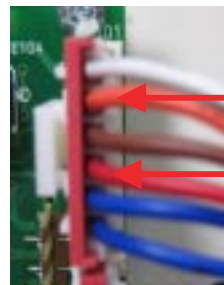
No

YES

Replace the Display PCB
(Position No: 501A)

Display PCB

Is the voltage between pin3 and pin5 of CON101 0 V or 5 V?



Transmitter Voltages

Test Point	Result
Pin3 To pin5	0 V or 5 V

No

Yes

Replace Display PCB

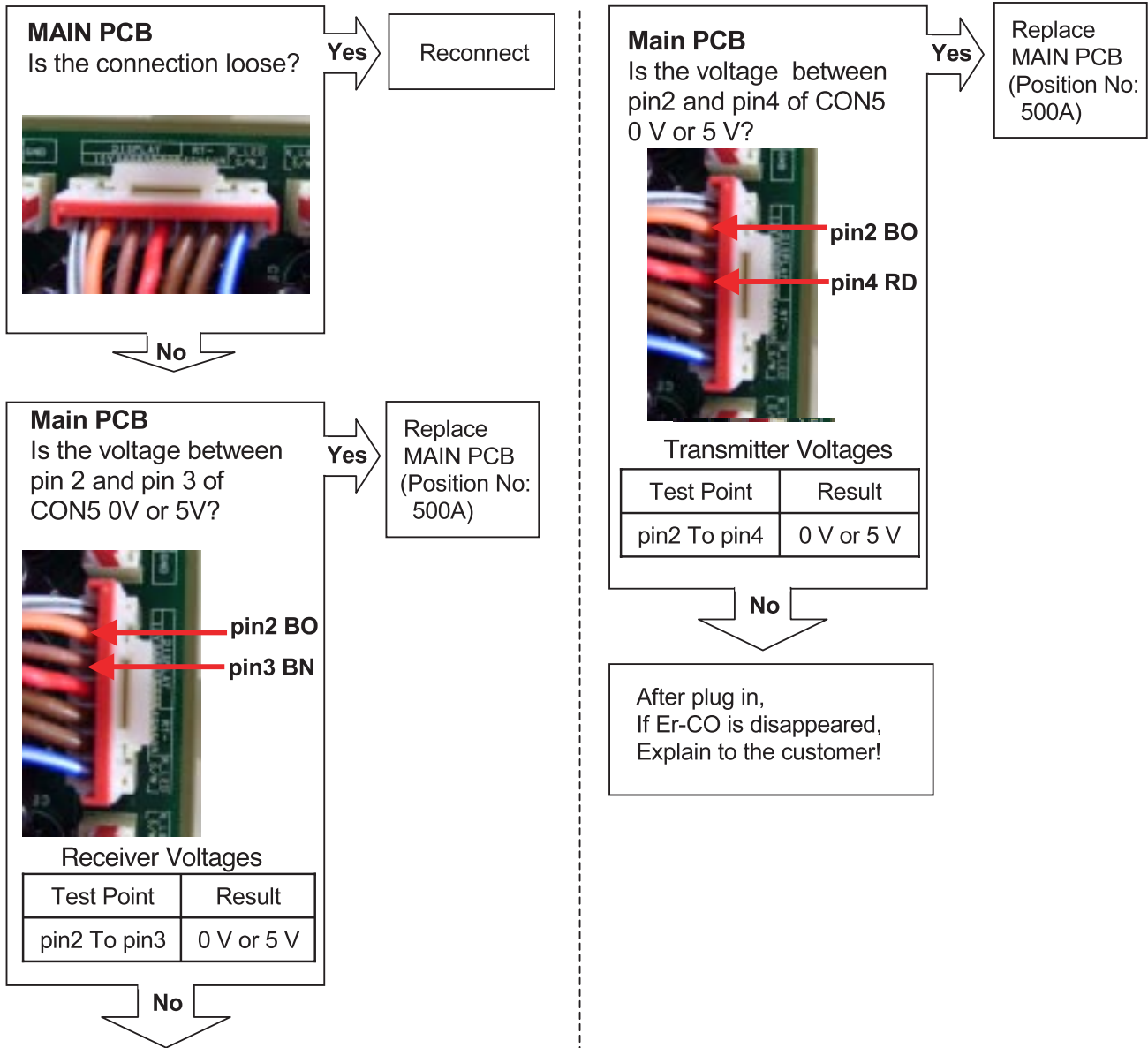
Is the joint connection loose In the Hinge?



Yes

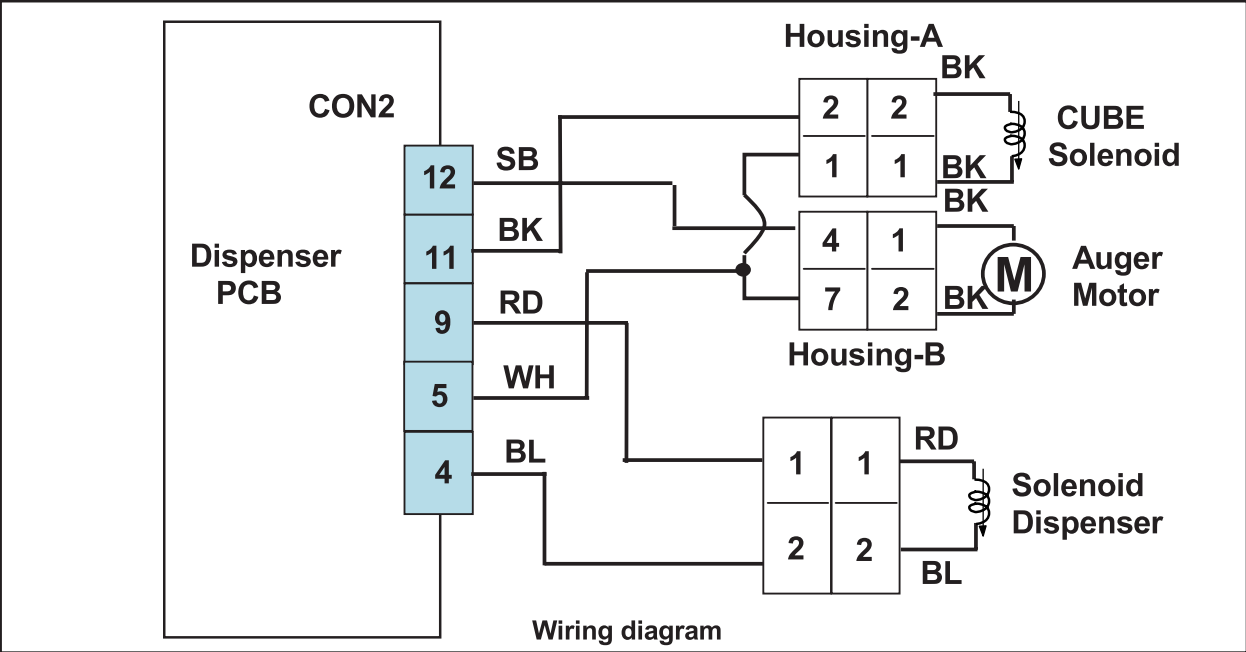
No

Reconnect



6-3. Troubleshooting Else

CUBE Mode doesn't work



Dispenser PCB
Is the connection loose?

Yes

Reconnect

No

In CUBE Mode,
Is the voltage between pin5 and pin11 of CON1 like as below, while pushing the ICE lever switch?

No

Replace Dispenser PCB
(Position No: 500C)



Pin5 WH

Pin11 BK

Relay open of cube solenoid

Lever switch	Test Point	Result
Pushing	pin5 To pin11	115 V
Normal	pin5 To pin11	0 ~ 2V

Yes

In CUBE Mode,
Is the voltage between pin5 and pin12 of CON1 like as below, while pushing the ICE lever switch?

No

Replace Dispenser PCB
(Position No: 500C)



Pin5 WH

PinX2 SB

Output voltage of auger motor

Lever switch	Test Point	Result
Pushing	pin5 To pin12	115 V
Normal	pin5 To pin12	0 ~ 2V

Yes

In CUBE Mode,
Is the voltage between pin4 and pin9 of CON1 like as below, while pushing the ICE lever switch?

No

Replace Dispenser PCB
(Position No: 500C)



Pin9 RD

Pin4 BL

Output voltage of dispenser solenoid

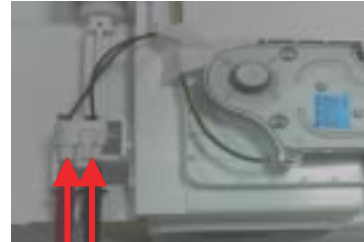
Lever switch	Test Point	Result
Pushing	pin4 To pin9	115 V
Normal	pin4 To pin9	0V

Yes

Is the resistance value between (1) and (2) of the Auger motor like as below?

No

Replace Auger Motor
(Position No: 606A)



(1)(2)

Resistance of Auger Motor

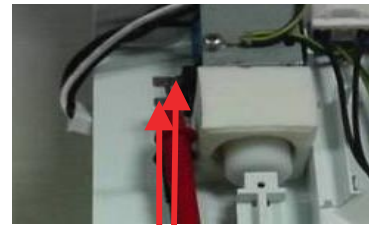
Test Point	Result
(1) To (2)	2.38 ~ 4.02 kΩ

Yes

Is the resistance value between (1) and (2) of the cube solenoid like as below?

No

Replace Cube Solenoid
(Position No: 614A)

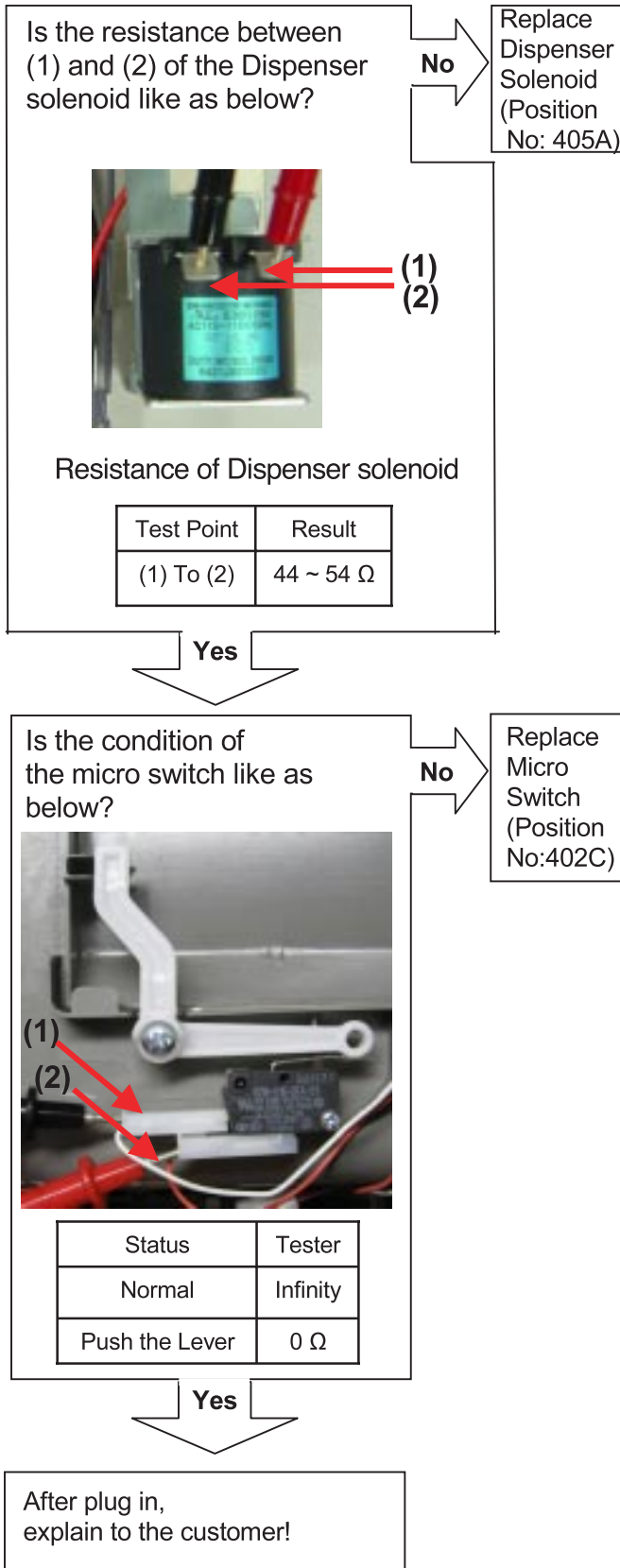


(1)(2)

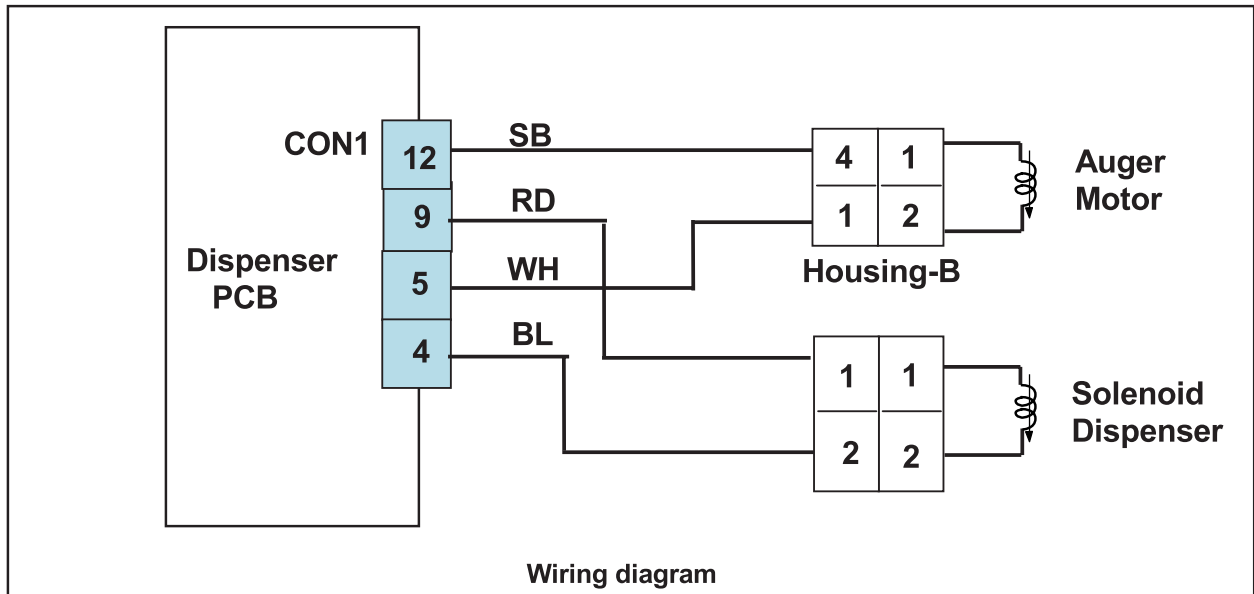
Resistance of Cube solenoid

Test Point	Result
(1) To (2)	32 ~ 40 kΩ

Yes



Crush Mode Doesn't work



Dispenser PCB

Is the connection loose?



Yes

Reconnect

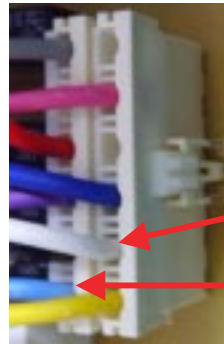
No

In Crush Mode,

Is the voltage between pin5 and pin12 of CON1 like as below, while pushing the lever switch?

No

Replace Dispenser PCB (Position No: 500C)



Pin5 WH

Pin12 SB

Output voltage of Auger motor

Lever switch	Test Point	Result
Pushing	Pin5 To pin12	115 V
Normal	pin5 To pin12	0V

Yes

In Crush Mode,

Is the voltage between pin4 and pin9 of CON1 like as below, while pushing the lever switch?

No

Replace Dispenser PCB
(Position No: 500C)



Pin9 RD
Pin4 BL

Output voltage of Dispenser solenoid

Lever switch	Test Point	Result
Pushing	pin4 To pin9	115 V
Normal	pin4 To pin9	0V

Yes

Is the resistance value between (1) and (2) of the Auger motor like as below?

No

Replace Auger Motor
(Position No: 606A)



(1)(2)

Resistance of Auger Motor

Test Point	Result
(1) To (2)	2.38 ~ 4.02 Ω

Yes

Is the voltage between (1) and (2) of the Dispenser solenoid like as below?

No

Replace Dispenser Solenoid
(Position No: 405A)



(1)
(2)

Resistance of Dispenser solenoid

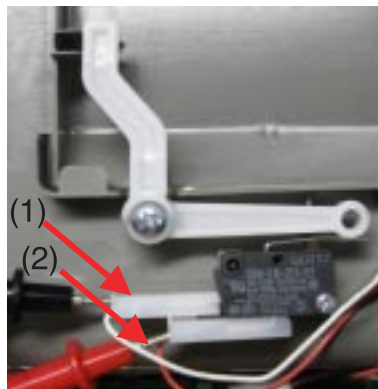
Test Point	Result
(1) To (2)	44 ~ 54 Ω

Yes

Is the condition of the micro switch like as below?

No

Replace Micro Switch
(Position No:402C)



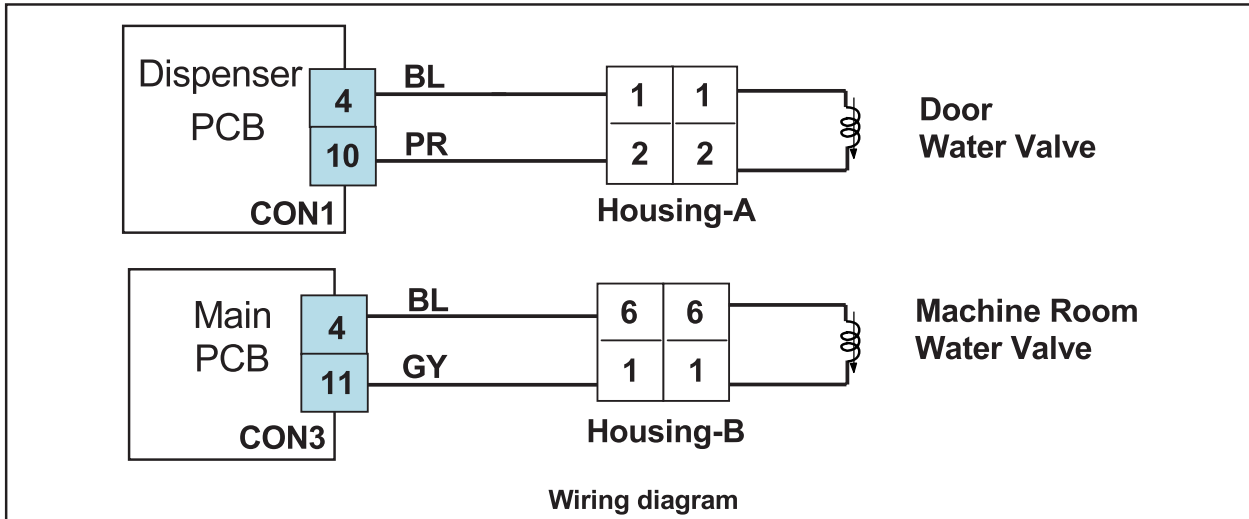
(1)
(2)

Status	Tester
Normal	Infinity
Push the Lever	0 Ω

Yes

After plug in,
explain to the customer!

Water Mode Doesn't work



Display PCB

Is the connection loose?



Yes

Reconnect

No

In Water Mode,

Is the voltage between pin4 and pin10 of CON1 in dispenser PCB like as below, while pushing the Water lever switch?

No

Replace Dispenser PCB (Position No: 500C)



CON1
Pin10 PR

CON1
Pin4 BL

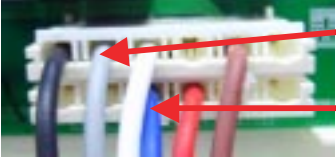
Output voltage of door water valve

Lever switch	Test Point	Result
Pushing	pin4 To pin10	115 V
Normal	pin4 To pin10	0V

Yes

In Water Mode,
Is the voltage between pin4 and pin11 of CON3 in main PCB like as below, while pushing the level switch?

No → Replace MAIN PCB (Position No: 500A)



Main PCB
CON3
PinXXGY
Pin4 BL

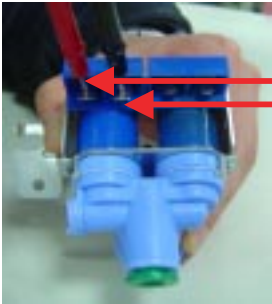
Output voltage of machine room water valve

Test Point	Result
Pin4 To pin11	115 V

Yes

First Water- valve
Is the resistance value between (1) and (2) of the First-water valve like as below?

No → Replace First Water-valve (Position No: 619A)



(1)
(2)

Machine room


Checking resistance of First-valve

Test Point	Result
(1) To (2)	360 ~ 420 Ω

Yes

Second Water- valve
Is the resistance value of Second-water valve like as below?

No → Replace Second Water-valve (Position No: 619B)



(1)
(2)

In door

Dispenser Ice Maker


Checking resistance of Second-valve

Test Point	Result
(1) To (2)	360 ~ 420 3

Yes

Is the condition of the micro switch like as below?

No → Replace Micro Switch (Position No:279G)



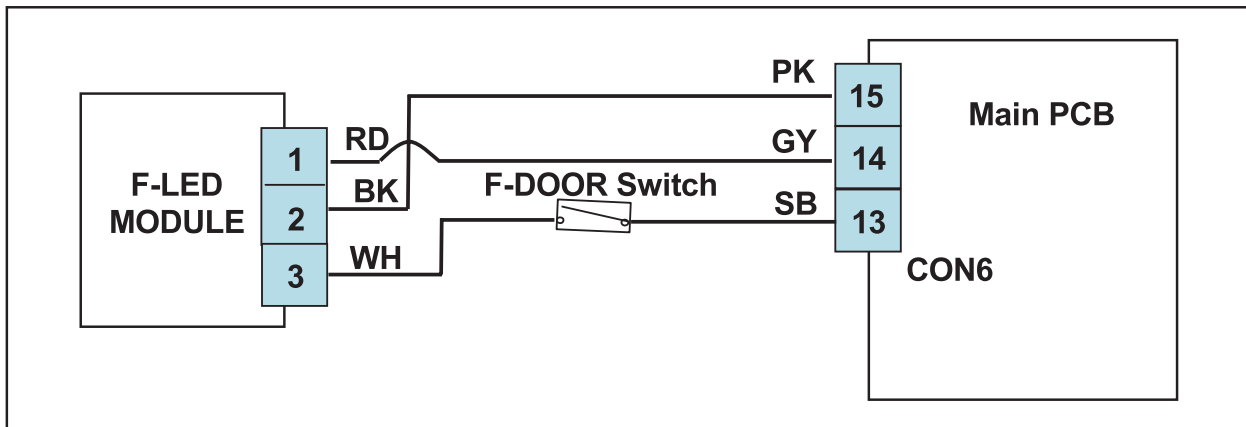
(1)YL
(2)PK

Status	Tester
Normal	Infinity
Push the Lever	0 Ω

Yes

After plug in,
explain to the customer!

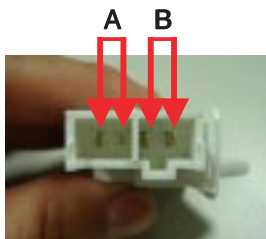
Freezer-LED Module Doesn't work



Is the condition of the freezer door switch like as below?

No

Replace Door switch (Position No: 406B)



Status	Tester
Normal	0 Ω
Push the Switch	Infinity

Yes

Is the connection loose?

Yes

Reconnect



CON6

No

Is the voltage between pin 14 and pin15 of CON6 like as below?

No

Replace MAIN PCB (Position No: 500A)



CON6 pin14 GY pin15 PK

Voltage of Freezer LED

Door	Test Point	Result
Don't Care	pin14 To pin15	12 V

Yes

Is the voltage between pin 1 and pin2 of Freezer LED Module Housing?

No

Check the harness open or short and replace F LED Module



Pin2 BK Pin1 RD

Voltage of Freezer LED

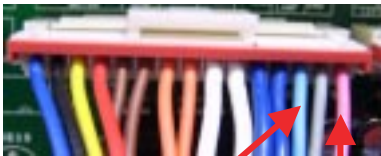
Door	Test Point	Result
Don't care	pin1 To pin2	12 V

Yes

Is the voltage between pin 13 and pin15 of CON6 like as below?

No

Replace MAIN PCB (Position No: 500A)



CON6 pin13 SB pin15 PK

Voltage of Door switch

Door	Test Point	Result
Don't Care	pin13 To pin15	12 V

Yes

Is the voltage between pin2 and pin3 of Freezer LED Module Housing?

No

1. Check the harness open or short



Pin3 WH Pin2 BK

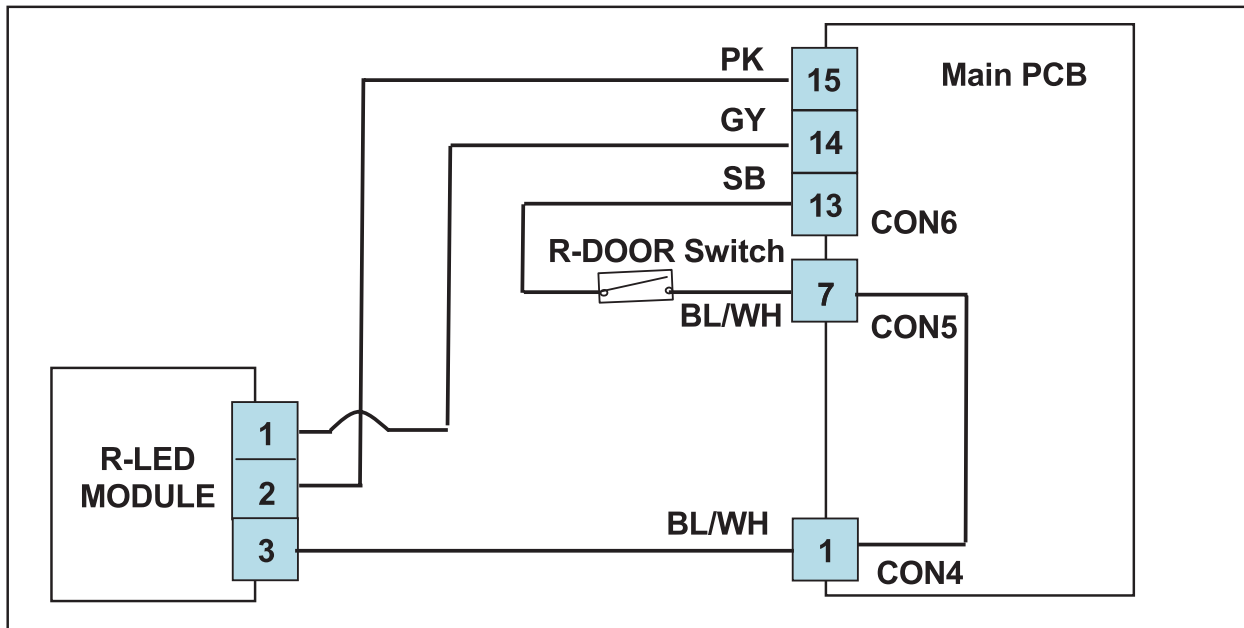
Voltage of Door S/W Signal

Door	Test Point	Result
Close	pin2 To pin3	0 V
Open	pin2 To pin3	12 V

Yes

Replace F LED Module (Position No:409E)

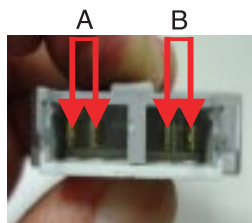
Refrigerator-LED Module Doesn't work



Is the condition of the freezer door switch like as below?

No

Replace Door switch (Position No: 402A)



Status	Tester
Normal	0 Ω
Push the Switch	Infinity

Yes

Is the connection loose?

Yes

Reconnect



CON6

No

Is the voltage between pin 14 and pin15 of CON6 like as below?

No

Replace MAIN PCB (Position No: 500A)



CON6 pin14 GY pin15 PK

Voltage of Refrigerator LED

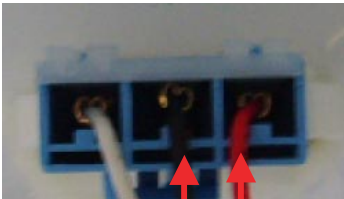
Door	Test Point	Result
Don't Care	pin14 To pin15	12 V

Yes

Is the voltage between pin 1 and pin2 of Refrigerator LED Module Housing?

No

- 1.Check the harness open or short
- 2.replace F LED Module



Pin2 BK Pin1 RD

Voltage of Refrigerator LED

Door	Test Point	Result
Don't care	pin1 To pin2	12 V

Yes

Is the connection loose?

Yes

Reconnect



CON6

No

Is the voltage between pin 13 and 15 of CON6 like as below?

No

Replace MAIN PCB (Position No: 500A)



CON6

pin13 SB Pin15 PK

Voltage of Door S/W Signal

Door	Test Point	Result
Don't care	pin13 To pin15	12V

Yes

Is the connection loose?

Yes

Reconnect



CON5

No

Is the voltage between pin 6 and 7 of CON5 like as below?

No

Replace MAIN PCB (Position No: 500A)



CON5

pin6 BN Pin7 BL/WH

Voltage of Door S/W Signal

Door	Test Point	Result
Close	pin6 To pin7	0 V
Open	pin6 To pin7	12 V

Yes

Is the connection loose?

Yes → Reconnect




CON4

No

Is the voltage between pin 1 and 3 of CON4 like as below?

No → Replace MAIN PCB (Position No: 500A)



CON4 pin1 BL/WH Pin14

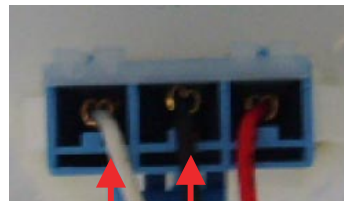
Aoltage of Door S/W Signal

Door	Test Point	Result
Close	pin1 To pin14	0 V
Open	pin1 To pin14	12 V

Yes

Is the voltage between pin2 and pin3 of Refrigerator LED Module Housing?

No → Check the harness open or short



Pin3 WH Pin2 BK

Aoltage of Door S/W Signal

Door	Test Point	Result
Close	pin2 To pin3	0 V
Open	pin2 To pin3	12 V

Yes

Replace R LED Module (Position No:409D)

Poor cooling in the refrigerator compartment

MAIN PWB

Is the connection loose?

Yes

Reconnect



CON3

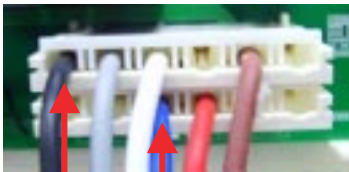
No

Enter the TEST 1 MODE

Is the voltage between
Pins 4 and pin 12 of
CON3 like as below?

No

Replace
MAIN PCB
(Position No:
500A)



CON3

Pin12 BK Pin4 BL

Voltage of Compressor

Test Point	Result
Pin4 To pin12	115 V

Yes

Is the voltage between
pins 2 and pin 3 of CON4
like as below?

NO

Replace
MAIN PCB
(Position No:
500A)



CON4

Voltage of F-fan

Test Point	Result
Pin2 To pin3	12 ~ 16 V

Yes

Feedback check.

Is the voltage between
Pin 2 and pin3 of CON4
like as below?

No

Replace
MAIN PCB
(Position No:
500A)



CON4

Test Point	Result
pin3 To pin4	1 ~ 4 V

Yes

Does the cold-air come out of the top of the main duct?

No

Check the Damper itself



Yes

Enter the TEST 2 MODE

Does not cold-air come out of the top of the main duct?

Yes

Check the Damper itself



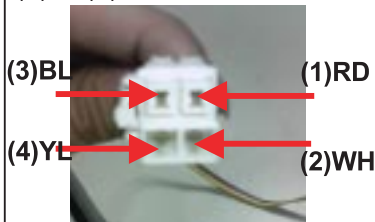
No

Checking Damper itself

Is the resistance Values between (1) & (4), (2) & (3) like as below?

No

Replace Damper (Position No:120A)



Resistance of Damper

Test Point	Result
(1) To (4)	373 ~ 456 Ω
(2) To (3)	373 ~ 456 Ω

Yes

After reset the unit, take steps to PCB as follows for temperature compensation.

- In the case of EBR419564
: Compensate with Jump wire cutting



JUMP WIRE	Temp. Compensation
JCR3	-1.0 deg
JCR4	-1.0 deg
Cutting both jumpers affords a 2° temperature compensation	

*** Cutting of jumper wire**

Over cooling in the refrigerator compartment

MAIN PWB

Is the connection loose?

Yes

Reconnect



CON3

No

Enter the TEST 1 MODE

Is the voltage between Pins 4 and pin 12 of CON3 like as below?

Yes

Replace MAIN PCB
(Position No: 500A)



CON3

Pin12 BK Pin4 BL

Voltage of Compressor

Test Point	Result
Pin4 To pin12	115 V

Yes

Check the **Fan operation** by placing your hand in front of the vents to feel for any cold air flow.

Yes

Replace Fan

Door	Fan-Motor
Open	OFF
Closed	ON

No

Enter the TEST 2 MODE

Does the cold-air coming out of the top of the main duct.?

No

Check the Damper itself



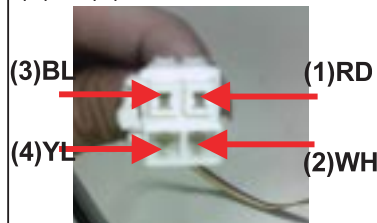
Yes

Checking Damper itself

Is the resistance Values between (1) & (4), (2) & (3) like as below?

No

Replace Damper
(Position No:120A)



Resistance of Damper

Test Point	Result
(1) To (4)	373 ~ 456 Ω
(2) To (3)	373 ~ 456 Ω

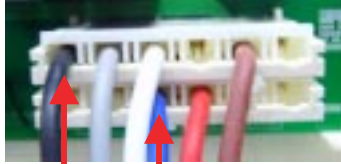
Yes

Enter the TEST 3 MODE

Is the voltage between
Pins 4 and pin 12 of
CON3 like as below?

Yes

Replace
MAIN PCB
(Position No:
500A)



CON3

Pin12 BK Pin4 BL

Voltage of Compressor

Test Point	Result
Pin4 To pin12	0~2 V

Yes

After reset the unit, take steps to PCB as follows for temperature compensation.

1. In the case of EBR419564
: Compensate with Jump wire cutting



JUMP WIRE	Temp. Compensation
	+1.0 deg
	+1.0 deg
Cutting both jumpers affords a 2° temperature compensation	

*** Cutting of jumper wire**

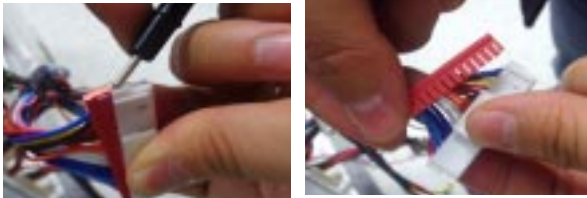
[NOTE]

1. How To Remove Terminal Position Assurance (TPA)

* AC TPA



* DC TPA



△ After measure the values, you should put in the TPA again.

2. Wire Color

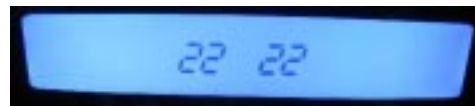
BL: Blue
WH: White
BO: Bright Orange
BK: Black
BN: Brown
PR: Purple
RD: Red
GN: Green
SB: Sky Blue
GY: Gray
BL/WH : Blue & White

2. How To Start Test Mode

Push the TEST button on the Main PWB, You can start the TEST MODE.



* 1 time : Comp / Damper / All FAN on,
(All things displayed)



* 2 times : Damper closed
(22 22 displayed)

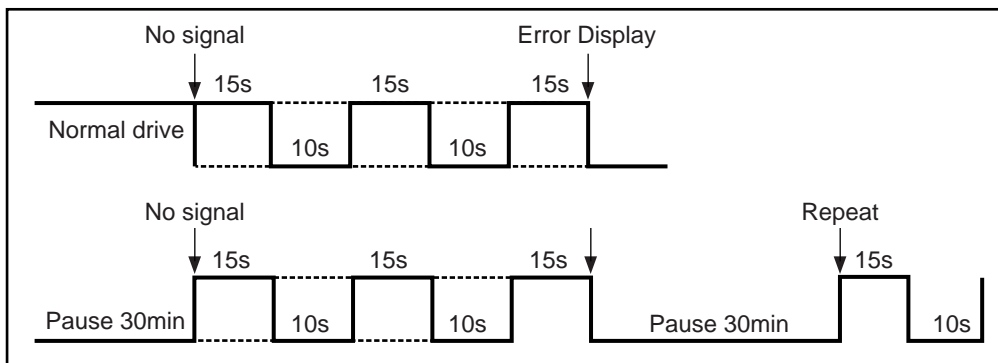


* 3 times : Forced forced defrost mode
(33 33 displayed)

4. How to check the Fan-Error

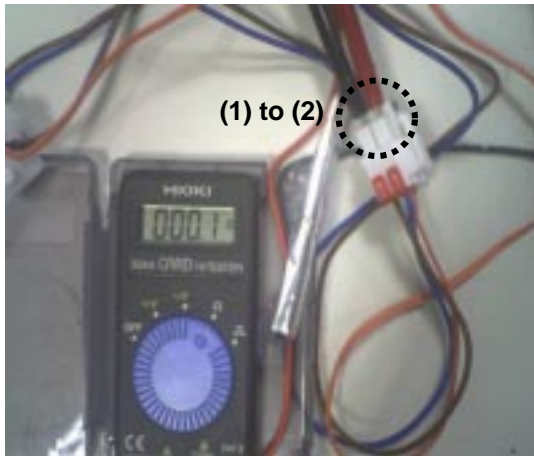
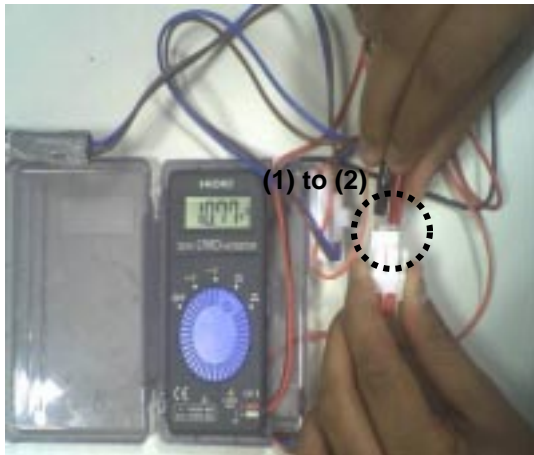
(1) EBR419564

After sending a signal to the fan, the MICOM checks the BLDC fan motor's lock status. If there is no feedback signal from the BLDC fan, the fan motor stops for 10 seconds and then is powered again for 15 seconds. To determine that there is a fan motor malfunction, this process is repeated 3 times. If the fan motor is determined to be defective, the error code will be shown in the display for 30 minutes. At this point, the process will be repeated until the fan motor operates normally. If normal operation is achieved, the error display is erased and the MICOM is reset automatically.

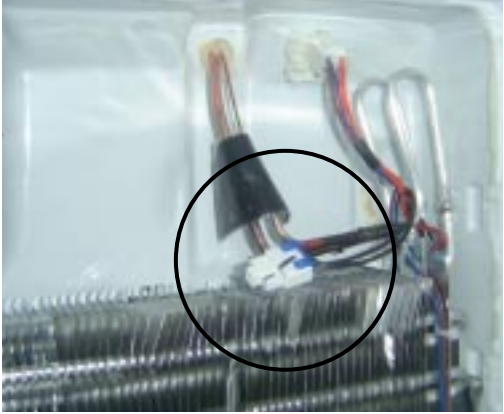
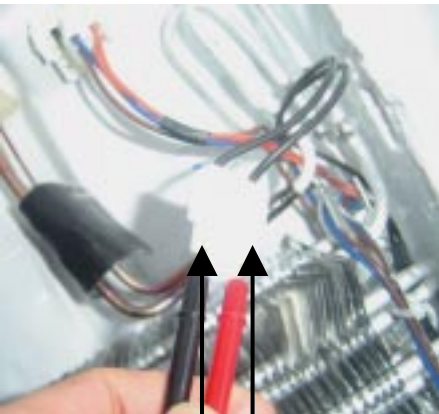


7. COMPONENT TESTING INFORMATION

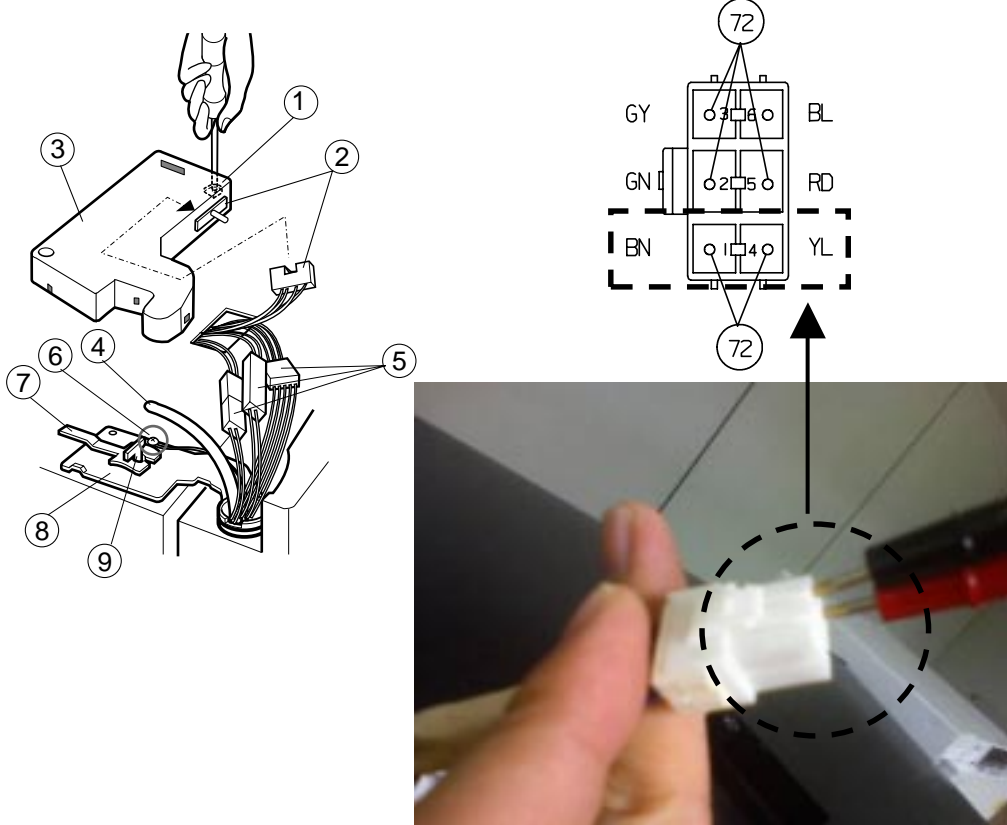
7-1. Defrost Controller Assembly

Function	<ul style="list-style-type: none">- Controller assembly is consist of 2 kinds of part those are fuse-m and sensor. we can decide part is defect or not when we check the resistance.- Fuse-m can cut off the source when defrost heater operate the unusual high temperature.- Sensor give temperature information to Micom									
How to Measure (Fuse-M)		Set a ohmmeter to the 2 housing pin. Measure the 2 pin connected to Fuse-M. If the ohmmeter indicate below 0.1ohm fuse-m is a good condition, But infinitely great ohm Fuse-M is disconnection								
How to Measure (Sensor)		Set a ohmmeter to The 2housing pin. Measure the 2 pin connected to Sensor. If the ohmmeter indicate 11kΩ (at room temperature) Sensor is not a defect. When check the ohm at other temperature Check the sensor manual.								
Standard	<div>Fuse-M (at all temperature)</div> <table><tr><th>Test Point</th><th>Ressult</th></tr><tr><td>(1) to (2)</td><td>0 ~0.1 Ω</td></tr></table>	Test Point	Ressult	(1) to (2)	0 ~0.1 Ω	<div>Sensor (at room temperature)</div> <table><tr><th>Test Point</th><th>Ressult</th></tr><tr><td>(1) to (2)</td><td>11 Ω</td></tr></table>	Test Point	Ressult	(1) to (2)	11 Ω
Test Point	Ressult									
(1) to (2)	0 ~0.1 Ω									
Test Point	Ressult									
(1) to (2)	11 Ω									

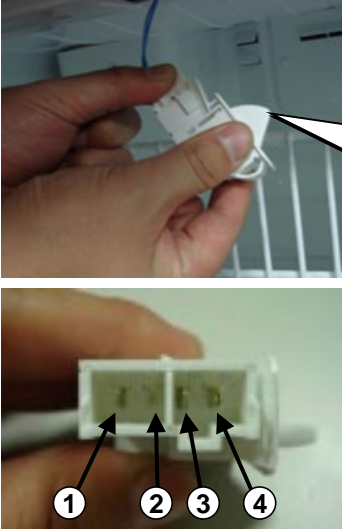
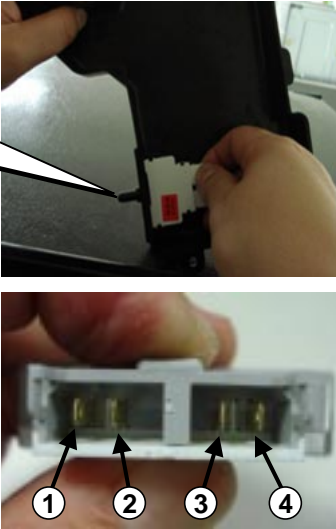




7-2. Sheath Heater

Function	<p>Sheath heater is a part for defrost. All heating wire is connected to only one line. So we can decide part is defect or not when we check the resistance.</p>				
How to Measure	<div style="display: flex; justify-content: space-around; align-items: flex-start;">   </div> <p>Set a ohmmeter connect to The 2 housing pin. Measure the 2 pin connected to Sheath Heater. If the ohmmeter indicate $(V \div V) / \text{Watt} = R$ is good condition, ex) when watt=350w, voltage=115v $R = (115 \div 115) / 350 = 38\Omega$ But the ohmmeter indicate infinitely great Sheath heater is disconnection</p>				
Standard	<p>Sheath heater (at all temperature)</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Test Point</th><th>Result</th></tr> </thead> <tbody> <tr> <td>(1) to (2)</td><td>34 ~42 Ω</td></tr> </tbody> </table>	Test Point	Result	(1) to (2)	34 ~42 Ω
Test Point	Result				
(1) to (2)	34 ~42 Ω				


7-3. Door Heater Assembly

Function	The heater is designed to prevent the raising dew from door.				
How to Measure	 <p>The diagram illustrates the assembly and measurement of the door heater. It shows a hand inserting a probe (1) into a terminal (2) on the heater unit (3). The heater is connected to a multi-pin connector (4) which is plugged into a larger connector (5) on the door assembly (6). The door assembly includes a hinge (7) and a latch (8). A photo shows a hand holding a white connector with a dashed circle around the pins, with an arrow pointing to the terminal diagram above it.</p> <p>The terminal diagram shows a 6-pin connector with the following labels: GY (Green/Yellow), GN (Green/Black), BN (Black/White), BL (Black/Light Blue), RD (Red), and YL (Yellow/Light Blue). The pins are numbered 1 through 6. The diagram also shows a 72V battery symbol connected to pins 3, 5, and 4.</p>				
Standard	<table border="1"> <thead> <tr> <th>Test Point</th><th>Result</th></tr> </thead> <tbody> <tr> <td>(1) to (2)</td><td>2.3 ~ 2.9 %</td></tr> </tbody> </table>	Test Point	Result	(1) to (2)	2.3 ~ 2.9 %
Test Point	Result				
(1) to (2)	2.3 ~ 2.9 %				

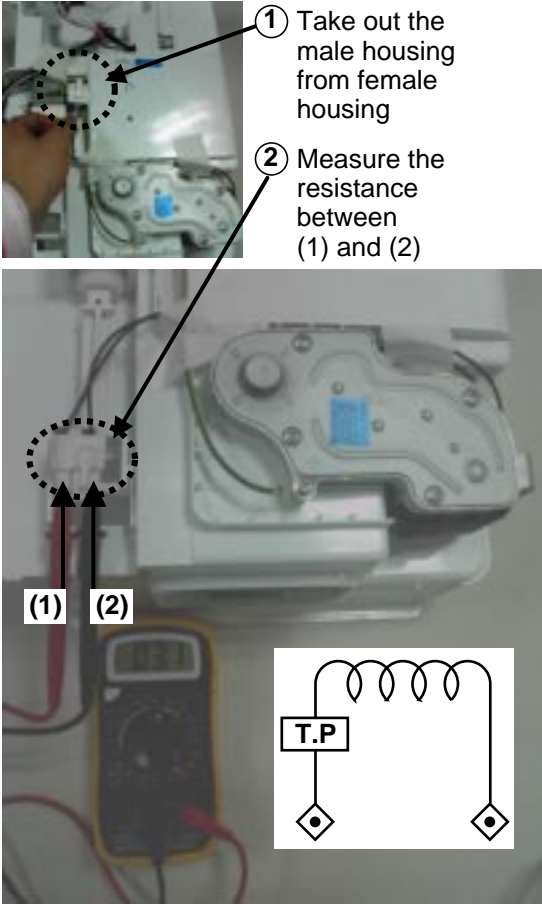
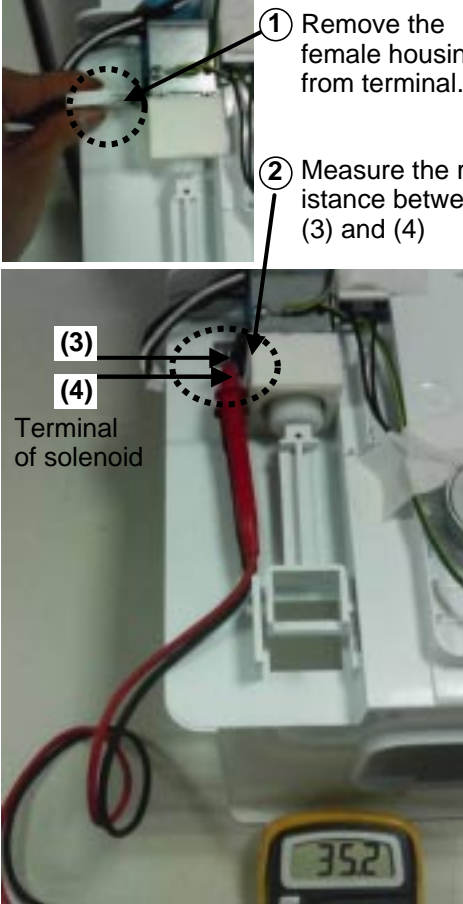
7-4. Door Switch

Function	<p>The switch sense if the door open or close.</p> <ul style="list-style-type: none">- When the door open, lamp on.- When the door open, the switch give information to Micom. <p>When the door open, internal contact operate on and off moving plunger of door switch up and down.</p>				
How to Measure	<div><div><p><Switch, Freezer></p><p>Button (Plunger)</p></div><div><p><Switch, Refrigerator></p></div></div> <div><div><p>Beep</p></div><div><p>Beep</p></div></div> <p>Check the resistance between connectors 1,2 and 3,4 .It means check whether or not applying an electric current. If there is resistance, it means the switch not inferiority</p>				
Standard	<p>Multimeter beep – Switch F,R</p> <table><tr><td>Nomal</td><td>Push the button(Plunger)</td></tr><tr><td>Beep or 0 Ω</td><td>None (∞ Ω)</td></tr></table>	Nomal	Push the button(Plunger)	Beep or 0 Ω	None (∞ Ω)
Nomal	Push the button(Plunger)				
Beep or 0 Ω	None (∞ Ω)				

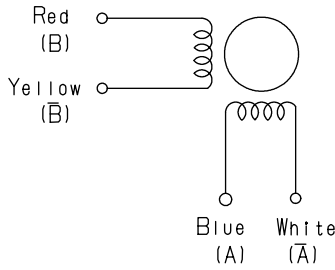
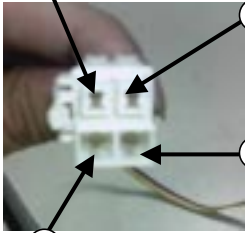

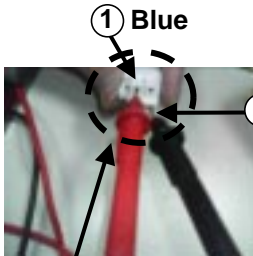
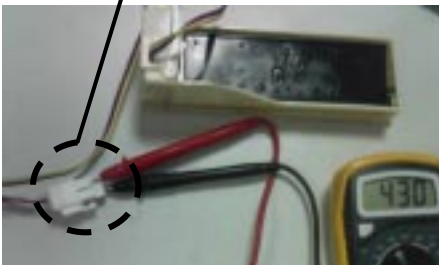
7-5. Solenoid

Function	- Dispenser solenoid : When customer push the dispenser button, Pull duct door and abstract from ice bank.				
How to Measure	<div></div> <p>Dispenser Solenoid</p>				
Standard	<div>Dispenser Solenoid</div> <table><tr><th>Test Points</th><th>Result</th></tr><tr><td>(1) to (2)</td><td>44 ~ 54 Ω</td></tr></table>	Test Points	Result	(1) to (2)	44 ~ 54 Ω
Test Points	Result				
(1) to (2)	44 ~ 54 Ω				

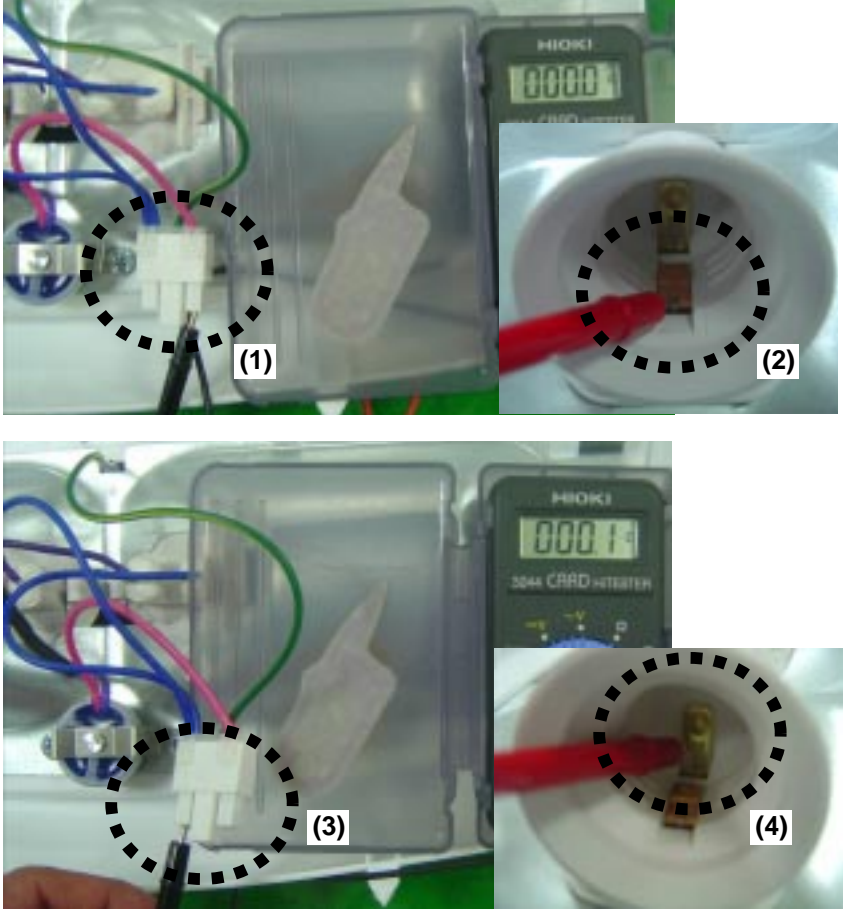
7-6. AC Motor ASSEMBLY (Geared Motor & Solenoid)

Function	<p>The Geared Motor of ac motor assembly advances forward the ice by rotating the ice and The solenoid of ac motor assembly selects one of the cube mode or crush mode.</p> <p>- Cube solenoid : Pulling the stir lip for moving the ice in ice maker system.</p>												
How to Measure	<div><div><p>< Geared Motor ></p><p>① Take out the male housing from female housing</p><p>② Measure the resistance between (1) and (2)</p></div><div><p>< Cube Solenoid ></p><p>① Remove the female housing from terminal.</p><p>② Measure the resistance between (3) and (4)</p><p>(3) (4) Terminal of solenoid</p></div></div> <p>Check the resistance between connectors (Geared motor 1,2) and (solenoid 3,4).It means check whether or not applying an Electric current. If there is resistance, it means the geared motor or solenoid is not inferiority</p>												
Standard	<table><tr><th colspan="2">Geared Motor</th><th colspan="2">Cube Solenoid</th></tr><tr><th>Test Points</th><th>Result</th><th>Test Points</th><th>Result</th></tr><tr><td>(1) to (2)</td><td>2.38 ~ 4.02 Ω</td><td>(3) to (4)</td><td>32 ~ 40 Ω</td></tr></table>	Geared Motor		Cube Solenoid		Test Points	Result	Test Points	Result	(1) to (2)	2.38 ~ 4.02 Ω	(3) to (4)	32 ~ 40 Ω
Geared Motor		Cube Solenoid											
Test Points	Result	Test Points	Result										
(1) to (2)	2.38 ~ 4.02 Ω	(3) to (4)	32 ~ 40 Ω										

7-7. Damper

Function	The damper supplies the cold air at freezer room to chillroom by using the damper's plate. Chillroom is colder than before when damper's plate is open. When damper's plate is close, chillroom's temperature will rise.																														
How to Measure	<div><div><p>Table(1): 결선도(Wirering)</p></div><div><p>Table(2): 2-2상 여자순서(CW Rotation)</p><table><tr><th rowspan="2">Housing No. & L/Wire Color</th><th colspan="4">Step</th></tr><tr><th>1</th><th>2</th><th>3</th><th>4</th></tr><tr><td>1- Blue (A)</td><td>+</td><td>-</td><td>-</td><td>+</td></tr><tr><td>2- Red (B)</td><td>+</td><td>+</td><td>-</td><td>-</td></tr><tr><td>3- White (A)</td><td>-</td><td>+</td><td>+</td><td>-</td></tr><tr><td>4- Yellow (B)</td><td>-</td><td>-</td><td>+</td><td>+</td></tr></table></div></div> <div><div><p>< Damper Circuit ></p><div><p>① Blue ② Red ③ White ④ Tellow</p></div><div><p>Check the ② , ④</p></div></div><div><div><p>① Blue ③ White</p><p>Checj the ① , ③ extension</p></div><div><p>Check the ① , ③</p></div></div><p>Check the resistance between connectors 1,3 and 2,4 .It means check whether or not applying an electric current. If there is resistance, it means the damper not inferiority</p></div>		Housing No. & L/Wire Color	Step				1	2	3	4	1- Blue (A)	+	-	-	+	2- Red (B)	+	+	-	-	3- White (A)	-	+	+	-	4- Yellow (B)	-	-	+	+
Housing No. & L/Wire Color	Step																														
	1	2	3	4																											
1- Blue (A)	+	-	-	+																											
2- Red (B)	+	+	-	-																											
3- White (A)	-	+	+	-																											
4- Yellow (B)	-	-	+	+																											
Standard	<div>Damper</div> <table><tr><td>Test Points</td><td>Result</td></tr><tr><td>Red and Yellow</td><td>373 ~ 456 Ω</td></tr></table> <table><tr><td>Test Points</td><td>Result</td></tr><tr><td>Blue and White</td><td>373 ~ 456 Ω</td></tr></table>		Test Points	Result	Red and Yellow	373 ~ 456 Ω	Test Points	Result	Blue and White	373 ~ 456 Ω																					
Test Points	Result																														
Red and Yellow	373 ~ 456 Ω																														
Test Points	Result																														
Blue and White	373 ~ 456 Ω																														

7-8. Lamp Socket

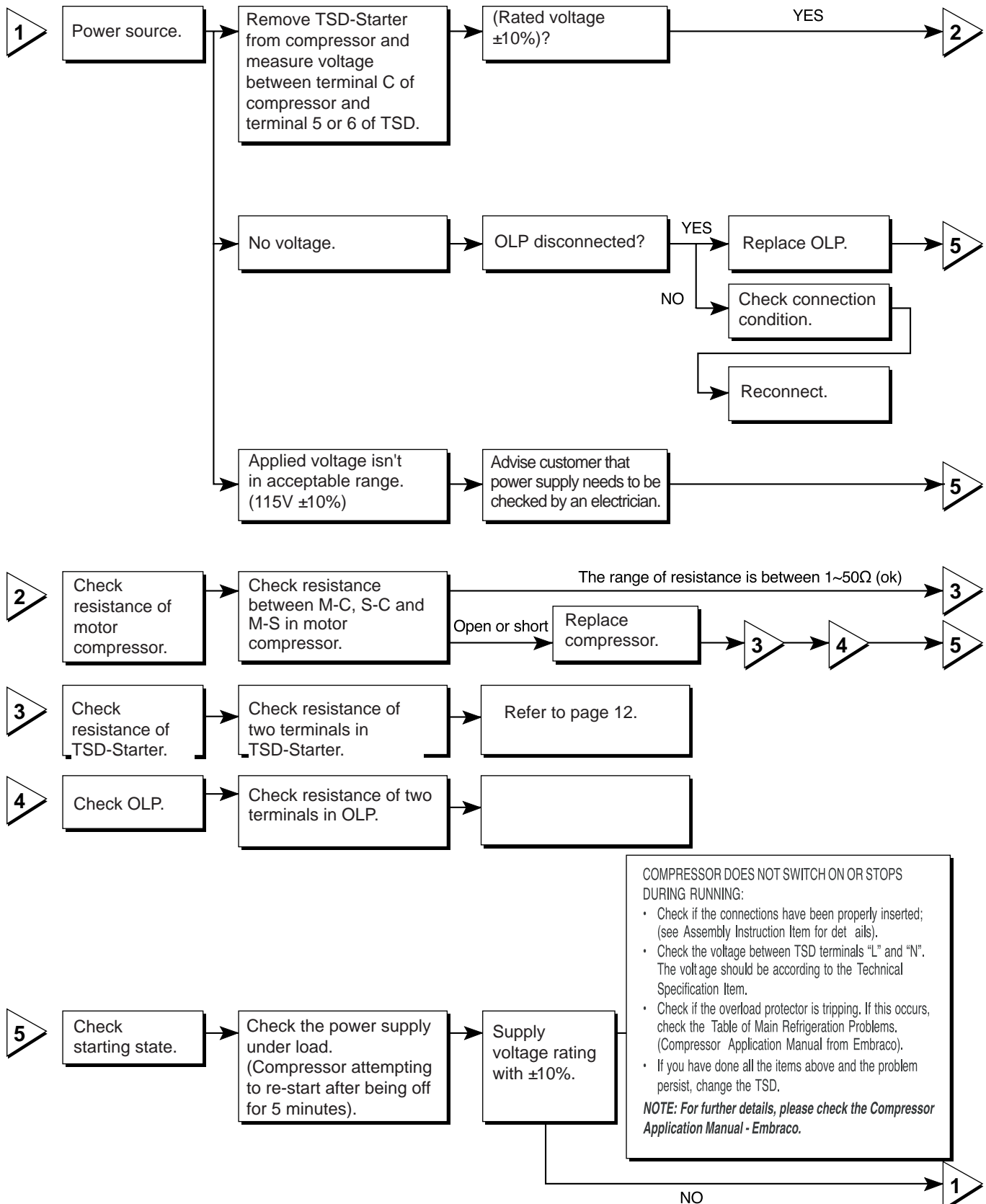
Function	<p>The lamp socket connect cover lamp assembly to lamp.</p> <p>The lamp socket fix lamp and unite lamp and cover lamp assembly.</p> <p>The lamp socket supply electric source to lamp also.</p>				
How to Measure	<div data-bbox="496 549 1339 1464">  <p>(1) (2) (3) (4)</p> </div> <p>Check the resistance between connector of housing and connector of lamp socket. It means check whether or not applying an electric current. If there is resistance it means the lamp socket is not inferiority.</p>				
Standard	<table border="1"> <thead> <tr> <th>Test Points</th><th>Result</th></tr> </thead> <tbody> <tr> <td>(1) to (2) and (3) to (4)</td><td>0 Ω</td></tr> </tbody> </table>	Test Points	Result	(1) to (2) and (3) to (4)	0 Ω
Test Points	Result				
(1) to (2) and (3) to (4)	0 Ω				

7-9. Water Valve

Function	<ul style="list-style-type: none"> - first-Water Valve (in machine room) : supply the water from city water to water filter in refrigerator - second-Water Valve (in door) : supply the water from water filter to icemaker and dispenser 				
How to Measure	<div style="display: flex; justify-content: space-around; align-items: flex-end;"> <div style="text-align: center;"> <p>First-water valve (in machine room)</p> </div> <div style="text-align: center;"> <p>second-water valve (in door)</p> </div> </div>				
Standard	<table border="1"> <thead> <tr> <th>Test Points</th><th>Result</th></tr> </thead> <tbody> <tr> <td>(1) to (2)</td><td>360 ~ 420 Ω</td></tr> </tbody> </table>	Test Points	Result	(1) to (2)	360 ~ 420 Ω
Test Points	Result				
(1) to (2)	360 ~ 420 Ω				

8. TROUBLESHOOTING

8-1 COMPRESSOR AND ELECTRIC COMPONENTS



8-2 TSD AND OLP

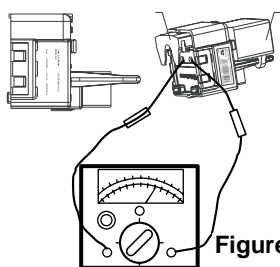
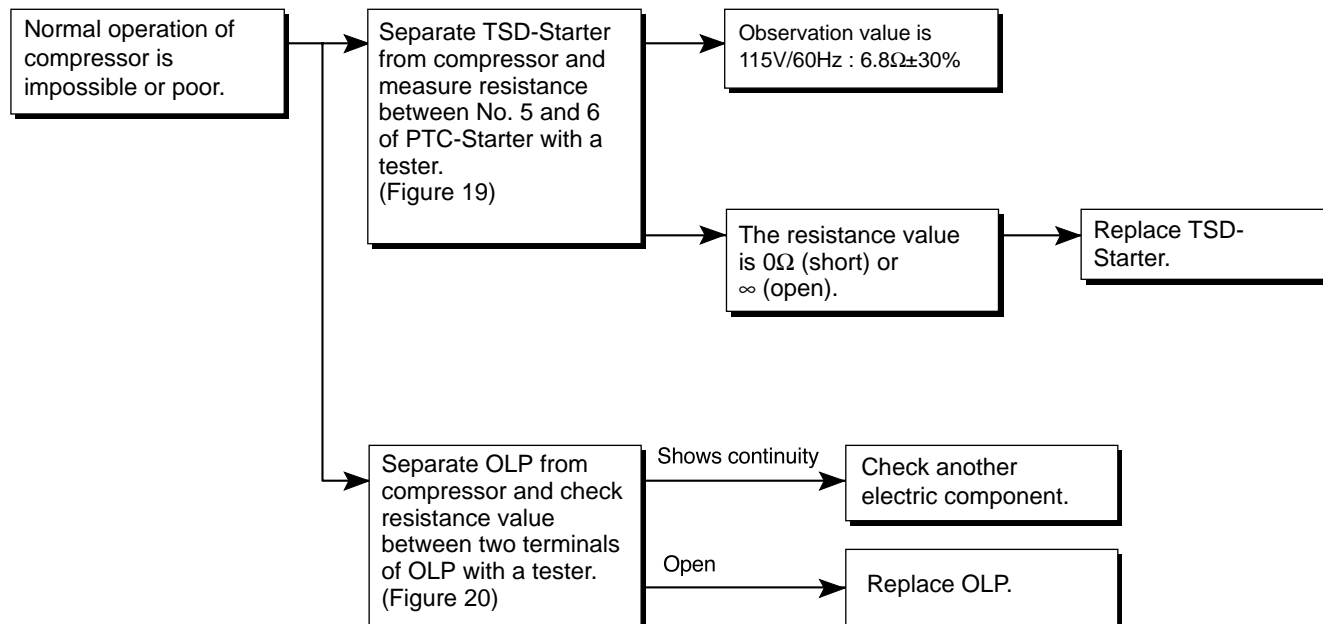


Figure 19

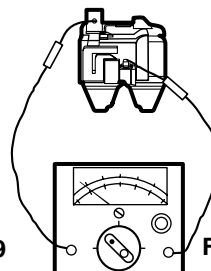
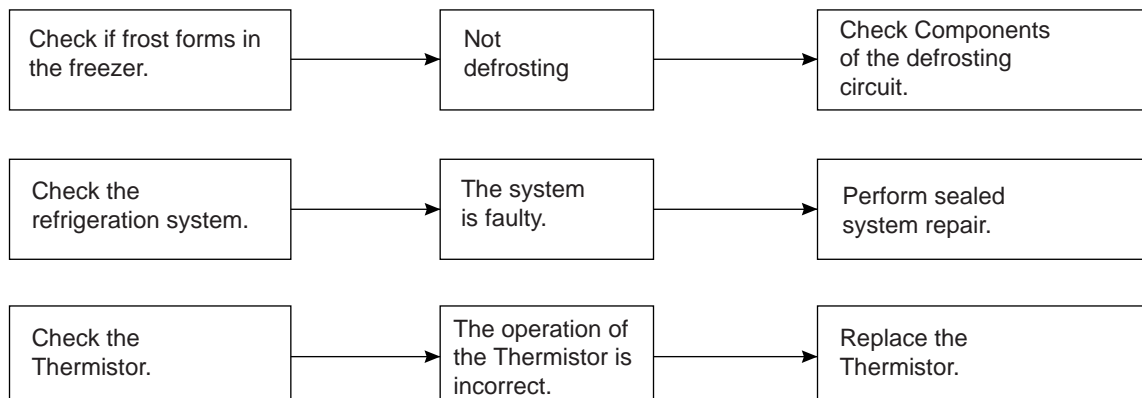


Figure 20

8-3 SERVICE DIAGNOSIS CHART

COMPLAINT	POINTS TO BE CHECKED	REMEDY
No Cooling.	<ul style="list-style-type: none"> Is the power cord unplugged from the outlet? Check if the power switch is set to OFF. Check if the fuse of the power switch is shorted. Measure the voltage of the power outlet. 	<ul style="list-style-type: none"> Plug into the outlet. Set the switch to ON. Replace the fuse. If the voltage is low, correct the wiring.
Cools poorly.	<ul style="list-style-type: none"> Check if the unit is placed too close to the wall. Check if the unit is placed too close to the stove, gas cooker, or in direct sunlight. Is the ambient temperature too high or the room door closed? Check if food put in the refrigerator is hot. Did you open the door of the unit too often or check if the door is sealed properly? Check if the Control is set to Warm position. 	<ul style="list-style-type: none"> Place the unit about 4 inches (10 cm) from the wall. Place the unit away from these heat sources. Lower the ambient temperature. Put in foods after they have cooled down. Don't open the door too often and close it firmly. Set the control to Recommended position.
Food in the Refrigerator is frozen.	<ul style="list-style-type: none"> Is food placed in the cooling air outlet? Check if the control is set to colder position. Is the ambient temperature below 41°F(5°C)? 	<ul style="list-style-type: none"> Place foods in the high-temperature section. (front part) Set the control to Recommended position. Set the control to Warm position.
Condensation or ice forms inside the unit.	<ul style="list-style-type: none"> Is liquid food sealed? Check if food put in the refrigerator is hot. Did you open the door of the unit too often or check if the door is sealed properly? 	<ul style="list-style-type: none"> Seal liquid foods with wrap. Put in foods after they have cooled down. Don't open the door too often and close it firmly.
Condensation forms in the Exterior Case.	<ul style="list-style-type: none"> Check if the ambient temperature and humidity of the surrounding air are high. Is there a gap in the door gasket? 	<ul style="list-style-type: none"> Wipe moisture with a dry cloth. It will disappear in low temperature and humidity. Fill up the gap.
There is abnormal noise.	<ul style="list-style-type: none"> Is the unit positioned in a firm and even place? Are any unnecessary objects placed in the back side of the unit? Check if the Drip Tray is not firmly fixed. Check if the cover of the compressor enclosure in the lower front side is taken out. 	<ul style="list-style-type: none"> Adjust the Leveling Screw, and position the refrigerator in a firm place. Remove the objects. Fix the Drip Tray firmly in the original position. Place the cover in its original position.
Door does not close well.	<ul style="list-style-type: none"> Check if the door gasket is dirty with an item like juice. Is the refrigerator level? Is there too much food in the refrigerator? 	<ul style="list-style-type: none"> Clean the door gasket. Position in a firm place and level the Leveling Screw. Make sure food stored in shelves does not prevent the door from closing.
Ice and foods smell unpleasant.	<ul style="list-style-type: none"> Check if the inside of the unit is dirty. Are foods with a strong odor unwrapped? The unit smells of plastic. 	<ul style="list-style-type: none"> Clean the inside of the unit. Wrap foods that have a strong odor. New products smell of plastic, but this will go away after 1-2 weeks.

● Other possible problems:



8-4 REFRIGERATION CYCLE

▼ Troubleshooting Chart

CAUSE		STATE OF THE UNIT	STATE OF THE EVAPORATOR	TEMPERATURE OF THE COMPRESSOR	REMARKS
LEAKAGE	PARTIAL LEAKAGE	Freezer compartment and Refrigerator don't cool normally.	Low flowing sound of Refrigerant is heard and frost forms in inlet only.	A little higher than ambient temperature.	<ul style="list-style-type: none"> Refrigerant level is low due to a leak. Normal cooling is possible by restoring the normal amount of refrigerant and repairing the leak.
	COMPLETE LEAKAGE	Freezer compartment and Refrigerator don't cool normally.	Flowing sound of refrigerant is not heard and frost isn't formed.	Equal to ambient temperature.	<ul style="list-style-type: none"> No discharging of Refrigerant. Normal cooling is possible by restoring the normal amount of refrigerant and repairing the leak.
CLOGGED BY DUST	PARTIAL CLOG	Freezer compartment and Refrigerator don't cool normally.	Flowing sound of refrigerant is heard and frost forms in inlet only.	A little higher than ambient temperature.	<ul style="list-style-type: none"> Normal discharging of the refrigerant. The capillary tube is faulty.
	WHOLE CLOG	Freezer compartment and Refrigerator don't cool.	Flowing sound of refrigerant is not heard and frost isn't formed.	Equal to ambient temperature.	<ul style="list-style-type: none"> Normal discharging of the Refrigerant.
MOISTURE CLOG		Cooling operation stops periodically.	Flowing sound of refrigerant is not heard and frost melts.	Lower than ambient temperature.	<ul style="list-style-type: none"> Cooling operation restarts when heating the inlet of the capillary tube.
DEFECTIVE COMPRESSION	COMP-RESSION	Freezer and Refrigerator don't cool.	Low flowing sound of refrigerant is heard and frost forms in inlet only.	A little higher than ambient temperature.	<ul style="list-style-type: none"> Low pressure at high side of compressor due to low refrigerant level.
	NO COMP-RESSION	No compressing operation.	Flowing sound of refrigerant is not heard and there is no frost.	Equal to ambient temperature.	<ul style="list-style-type: none"> No pressure in the high pressure part of the compressor.

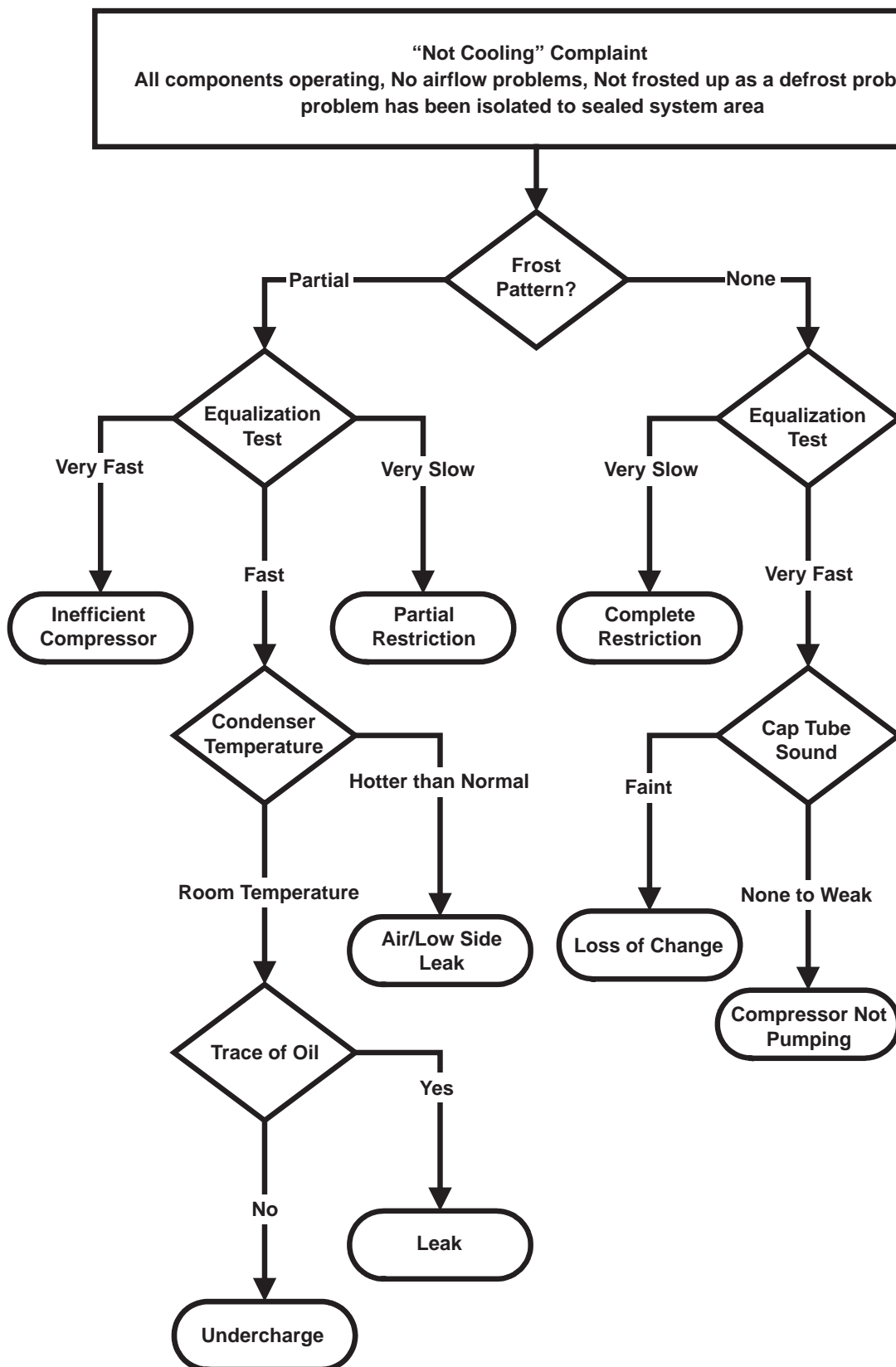
8-4-1 Cleaning

There is no need for routine condenser cleaning in normal Home operating environments. If the environment is particularly greasy or dusty, or there is significant pet traffic in the home, the condenser should be cleaned every 2 to 3 months to ensure maximum efficiency.

If you need to clean the condenser:

- Remove the mechanical cover.
- Use a vacuum cleaner with a soft brush to clean the grille, the open areas behind the grille and the front surface area of the condenser.
- Replace the mechanical cover.

8-4-2 SEALED SYSTEM DIAGNOSIS

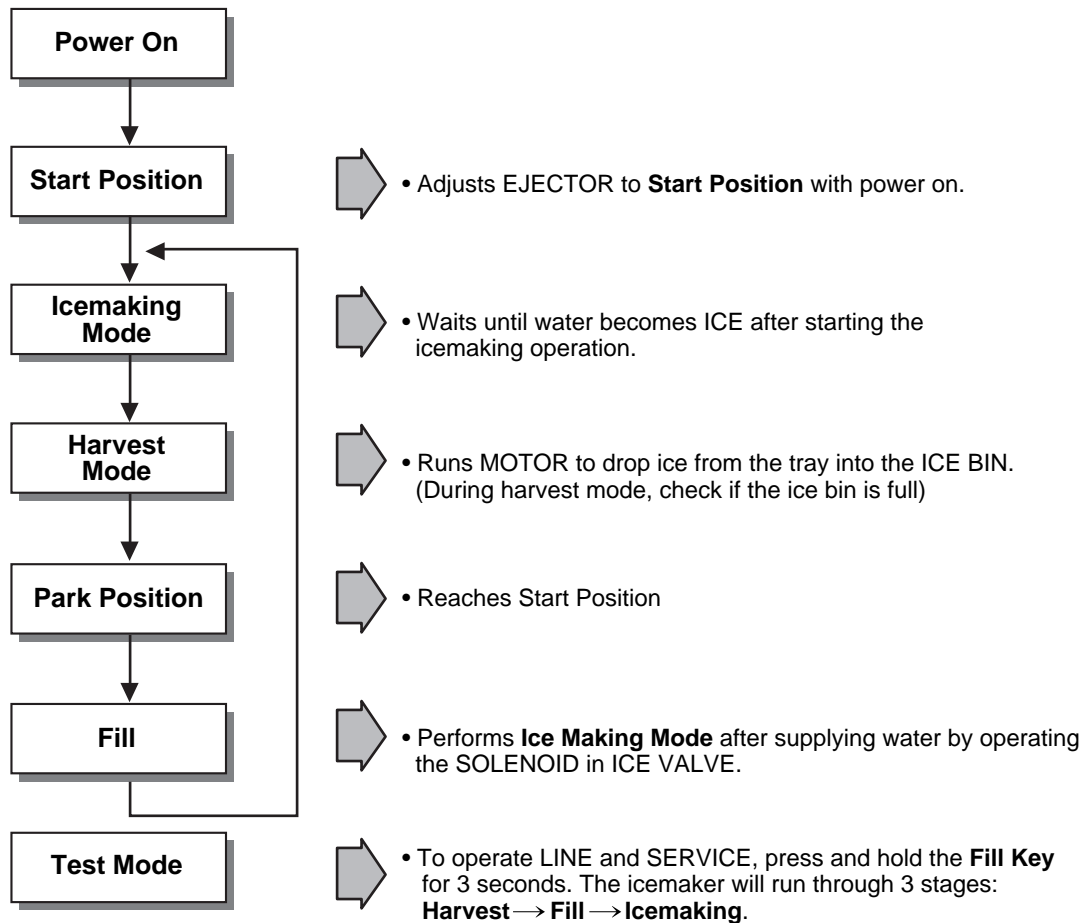


(The equalization test is trying to restart a compressor using a start kit after it has been operating.)

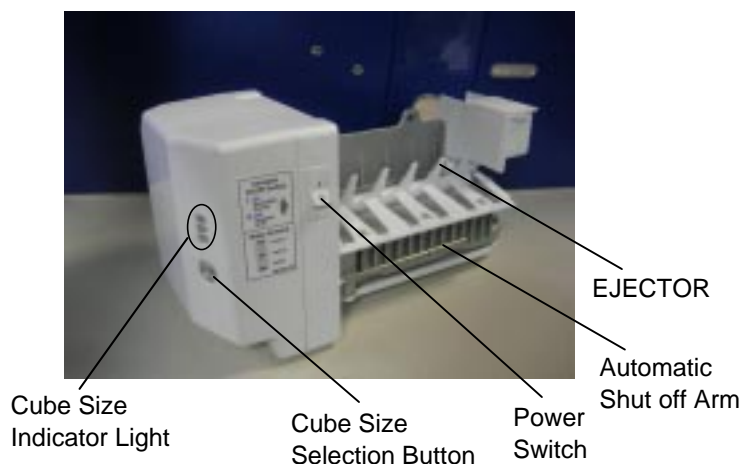
9. OPERATION PRINCIPLE AND REPAIR METHOD OF ICEMAKER

9-1 OPERATION PRINCIPLE

9-1-1 Operation Principle of IceMaker



1. Turning the Icemaker stop switch off (O) stops the ice making function.
2. Setting the Icemaker switch to OFF and then turning it back on will reset the icemaker control.



9-2 ICE MAKER FUNCTIONS

9-2-1. Icemaking Mode

1. Icemaking refers to the freezing of supplied water in the ice tray. Complete freezing is assured by measuring the temperature of the Tray with Icemaking SENSOR.
2. Icemaking starts after completion of the water fill operation.
3. The Ice Making function is completed when the sensor reaches 19°F (-7°C), 55 minutes after starting.

NOTE : After Icemaker Power is ON, the Icemaker heater will be on for test for 6 sec.




9-2-2. Harvest Mode

1. Harvest (Ice removing) refers to the operation of dropping ices into the ice bin from the tray when icemaking has completed.
 2. Harvest mode:
 - (1) The Heater is ON for 30 seconds, then the motor starts.
 - (2) The feeler arm senses the quantity of ice in the ice storage bin while rotating with the EJECTOR.
 - A. Ice storage bin is full : The EJECTOR stops (heater off).
 - B. Ice storage bin is not full : The EJECTOR rotates twice to open for ice.
- ※ If the EJECTOR does not rotate once within 5 minutes in B mode, separate heater control mode starts operating to prevent the EJECTOR from being constrained. (It is recommended that the user open for ice to return to normal mode.)

9-2-3. Fill/Park Position

1. Once a normal harvest mode has been completed, the water solenoid will be activated.
2. The amount of water is adjusted by pressing the Fill Key repeatedly. This changes the time allowed for fill as illustrated in the table below.






Water supply amount TABLE

STAGE	TIME TO SUPPLY	INDICATIONS	REMARKS
1	5 sec.		The water amount will vary depending on the water control Switch setting, as well as the water pressure of the connected water line.
2	5.5 sec. (FIRST STAGE)		
3	6 sec.		

9-2-4 Function TEST


1. This is a forced operation for TEST, Service, cleaning, etc. It is operated by pressing and holding the Fill Key for 3 seconds.
2. The test works only in the Icemaking Mode. It cannot be entered from the Harvest or Fill mode.
3. **Caution!** If the test is performed before water in the icemaker is frozen, the ejector will pass through the water. When the Fill mode begins (Stage 4), unless the water supply has been shut off, added water will overflow into the ice bin. If the control doesn't operate normally in the TEST mode, check and repair as needed.
4. After water is supplied, the normal CYCLE is followed: **icemaking** → **Harvest** → **Park Position** → **Fill**.
5. Five seconds after Stage 5 is completed, the Ice Maker returns to MICOM control. The time needed to supply water resets to the pre- test setting.

Diagnosis TABLE

STAGE	ITEMS	INDICATOR	REMARKS
1	HEATER		Five seconds after heater starts, a heater will go off if the temperature by sensor is higher than 10°C
2	MOTOR		Five seconds after heater starts, you can confirm that a motor is moving.
3	HALL IC I		Check if Ice Bin is full or not. If Ice bin is full, the motor and heater are off and on stand by until Ice bin is empty.
4	HALL IC II		You can confirm HALL IC detection of start position.
5	VALVE		Two seconds after detection of start position, you can confirm that valve is on.
6	Reset	Return to Status prior to TEST MODE	Five seconds after fifth stage is completed, The icemaker resets to initial status.

9-3 DEFECT DIAGNOSIS FUNCTION

9-3-1 ERROR CODES shown on Ice Maker water supply control panel

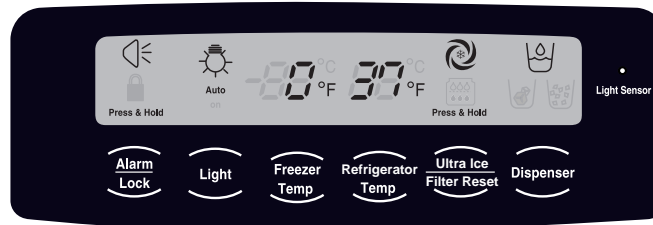
NO	DIVISION	INDICATOR	CONTENTS	REMARKS
1	Normal	Mark time to supply	None	Display switch operates properly
2	Icemaking Sensor malfunction		Open or short-circuited wire	Make sure that the wire on each sensor is connected.

10. DESCRIPTION OF FUNCTION & CIRCUIT OF MICOM

10-1 FUNCTION

101-1 Function

1. When the appliance is plugged in, it is set to 37°F for Refrigerator and 0°F for freezer.
You can adjust the Refrigerator and the Freezer control temperature by pressing the ADJUST button.
2. When the power is initially applied or restored after a power failure, it is set to Control temperature Previously.

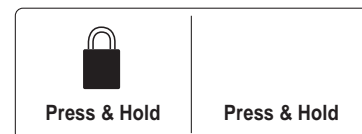


10-1-2 How to Toggle the Display between °F & °C

1. The initial setting is °F and the display temperature mode can be changed from °F to °C or °C to °F by pressing and holding the FRZ TEMP and the REF TEMP keys at the same time for over 5 seconds.

10-1-3 Lock function (dispenser and display button lock)

1. When the refrigerator is first turned on, the buttons are not locked. The display panel shows the padlock unlocked icon.
2. To lock the display, the dispenser, and the control panel, press and hold the LOCK button for 3 seconds. The locked pad lock icon is displayed.
3. The LOCK button is the only control feature that remains active in the locked state. The buzzer sound, other control buttons, and the dispenser are deactivated.
4. To release from the locked state, press and hold the LOCK button again for 3 seconds.



Ex) In selecting
"LOCK"


Ex) In selecting
"LOCK" again

10-1-4 Filter condition display function

1. There is a replacement indicator light for the filter cartridge on the dispenser.
2. Water filter needs replacement once six months or of using water filter.
3. Water Filter icon turn on to tell you need to replace the filter soon.
4. After replacing the filter, press and hold the lock button more than 3 seconds.
Water Filter icon turn off with reset status.

Classification

Filter Status
Display

In initial Power On / Filter RESET	Replace indicator light on
Press & Hold	 Press & Hold

10-1-5 Ultra Ice selection

Please select this function for quick freezing.

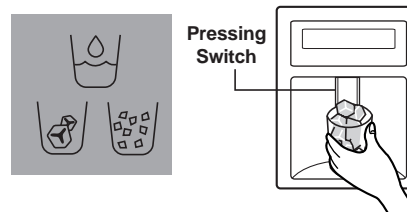
- Function is repeat Ultra Ice Icon whenever pressing Ultra Ice button.
- Ultra Ice function automatically turns off after a fixed time passes.



10-1-6 Dispenser use selection

You can select water or ice.

- * Select water, crushed ice, or ice cubes by cycling through the selections when pressing the DISPENSER button,
- * Hold your cup in the dispenser for a few seconds after dispensing ice or water to allow the last pieces of ice or drops of water to fall into the cup.
- * When after initially establishing the water comes out, the water tank inside fills and until at the time of quality the hour is caught.



10-1-7 DISPENSER LIGHT

-Whenever pressed the LIGHT button, DISPLAY is changed as follows.



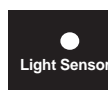
①



②



③



- ① Normal status: When dispenser is operated, DISPENSER LIGHT is ON.
- ② AUTO status: Detecting the lighting of room by LIGHT SENSOR, DISPENSER LIGHT is on and off automatically.
- ③ ON status: DISPENSER LIGHT is on continuously.

10-1-8 CONTROL OF FREEZER FAN MOTOR

1. Freezer fan motor has high and standard speeds.
2. High speed is used at power-up, for Ultra Ice, and when refrigerator is overloaded.
Standard speeds is used for general purposes.
3. To improve cooling speed, the RPM of the freezer fan motor change from normal speed to high.
4. High speed (2700RPM) : Initial power on or load corresponding operation, Ultra Ice.
Normal speed (2400RPM) : General working conditions.
5. Fan motor stops when refrigerator or freezer door opens.

10-1-9 Cooling Fan Motor

1. The cooling fan is switched ON and OFF in conjunction with the compressor.
2. The cooling fan Motor has high and standard speeds. (When room temperature more high than 38 °C speed is high)
3. The Failure sensing method is the same as in the fan motor of the freezing fan motor(refer to failure diagnosis function table for failure display).

10-1-10 Ice Compartment Fan

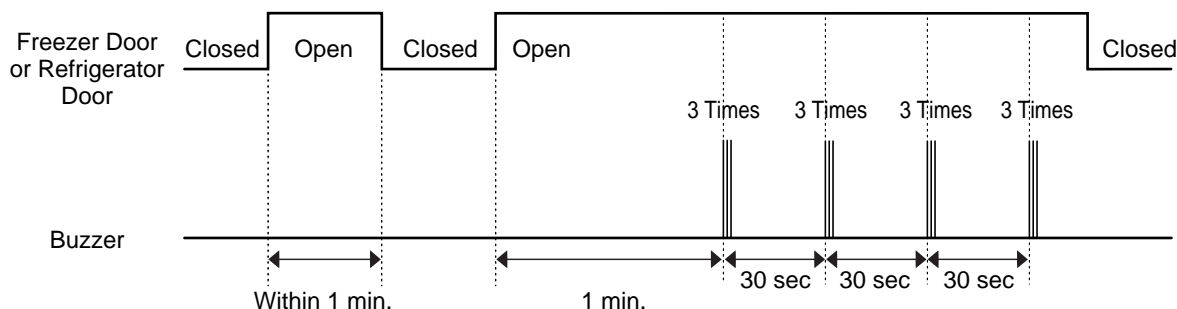
1. The Icing Fan is controlled by the the sensor on the top of the ice compartment.
2. The Failure sensing method is the same as in the fan motor of the freezer
(refer to failure diagnosis function table for failure display)

10-1-11 Ice Plus

1. The purpose of this function is to intensify the cooling speed of freezer and to increase the amount of ice.
2. Whenever selection switch is pressed, selection/release, the Icon will turn ON or OFF.
3. If there is a power outage and the refrigerator is powered on again, Ice Plus will be canceled.
4. To activate this function, press the Ice Plus key and the Icon will turn ON. This function will remain activated for 24 hrs. The first three hours the compressor and Freezer Fan will be ON. The next 21 hours the freezer will be controlled at the lowest temperature. After 24 hours or if the Ice Plus key is pressed again, the freezer will return to its previous temperature.
5. During the first 3 hours:
 - (1) Compressor and freezer fan (HIGH RPM) run continuously.
 - (2) If a defrost cycle begins during the first 90 minutes of Ice Plus, the Ice Plus cycle will complete its cycle after defrosting has ended.
If the defrost cycle begins when Ice Plus has run for more than 90 minutes, Ice Plus will run for two hours after the defrost is completed.
 - (3) If Ice Plus is pressed during defrost, Ice Plus Icon is on but this function will start seven minutes after defrost is completed and it shall operate for three hours.
 - (4) If Ice Plus is selected within seven minutes after compressor has stopped, the compressor (compressor delays seven minutes) shall start after the balance of the delay time.
 - (5) The fan motor in the freezer compartment runs at high speed during Ice Plus.
6. For the rest of the 21 hours, the freezer will be controlled at the lowest temperature.

10-1-12 Alarm for Open Door

1. This feature sounds a buzzer when the freezer or refrigerator door is not closed within 1 minute after it is opened.
2. One minute after the door is opened, the buzzer sounds three times each for 1/2 seconds. These tones repeat every 30 seconds.
3. The alarm is cancelled when the freezer or the refrigerator is closed while the buzzer sounds.

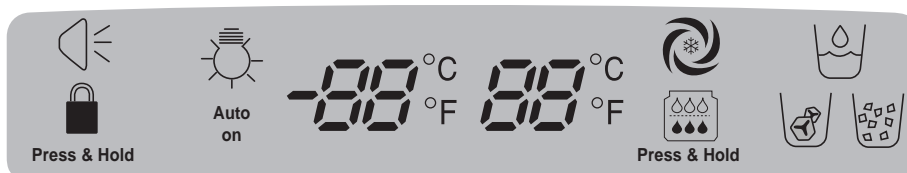


10-1-13 Defrosting (removing frost)

1. Defrosting starts each time the COMPRESSOR running time Between 7~50 hours.
2. For initial power on or for restoring power, defrosting starts when the compressor running time reaches 4 hours.
3. Defrosting stops if the sensor temperature reaches 46.4°F(8°C) or more. If the sensor doesn't reach 46.4°F(8°C) in 1 hours, the defrost mode is malfunctioning. (Refer to the defect diagnosis function, 8-1-15.)
4. Defrosting won't function if its sensor is defective (wires are cut or short circuited)

10-1-14 Defect Diagnosis Function

1. Automatic diagnosis makes servicing the refrigerator easy.
2. When a defect occurs, the buttons will not operate; but the tones. such as ding. will sound.
3. When the defect CODE removes the sign, it returns to normal operation (RESET).
4. The defect CODE shows on the Refrigerator and Freezer Display.



- * LCD check function: If simultaneously pressing Ultra Ice button and freezing temperature adjustment button for a second, display LCD graphics on. If releasing the button, the LCD graphic displays the previous status.

ERROR CODE on display panel

NO	Error Detection Category	Error Display		Error Generation Factors	Remark
		Freezer Temperature	Ref. Temperature		
1	Normality			None	Normal operation of Display
2	Freezer Sensor Error	Er	FS	Short or Disconnection of Freezer Sensor	Each Sensor have to check disconnection
3	Refrigerator Sensor Error	Er	rS	Short or Disconnection of Refrigerator Sensor	
4	Defrosting Sensor Error	Er	dS	Short or Disconnection of Defrosting Sensor	
5	Icing Sensor Error	Er	IS	Short or Disconnection of Icing Sensor	
6	Poor Defrosting	Er	dH	Even though it is passed 1 hour since then Defrosting , if Defrosting sensor is not over 46°F(8°C), it is caused	Temperature Fuse Disconnection, Heater disconnection, DRAIN Jam, Poor Relay for Heater
7	Abnormality of BLDC FAN Motor for Ice Making	Er	IF	It is caused when F/B signal isn't over 65 seconds during BLDC FAN motor operating	Poor BLDC Motor connection, DRIVE IC, and TR
8	Abnormality of BLDC FAN Motor for Freezer	Er	FF	It is caused when F/B signal isn't over 65seconds during BLDC FAN motor operating	Poor BLDC Motor connection, DRIVE IC, and TR
9	Abnormality of BLDC FAN Motor for Mechanic Room	Er	CF	It is caused when F/B signal isn't over 65seconds during BLDC FAN motor operating	Poor BLDC Motor connection, DRIVE IC, and TR
10	Communication Error	Er	CO	Communication Error between Micom of Main PCB and Display Micom	Poor Communication connection, Poor TR of Transmitter and Receiver

NOTE) In the case of Room Temperature Seneor Error, “Er rt” appears on the Display when ICE PLUS KEY and Freezer Temp’ KEY pressed at the same time for one second.

10-1-16 TEST Mode

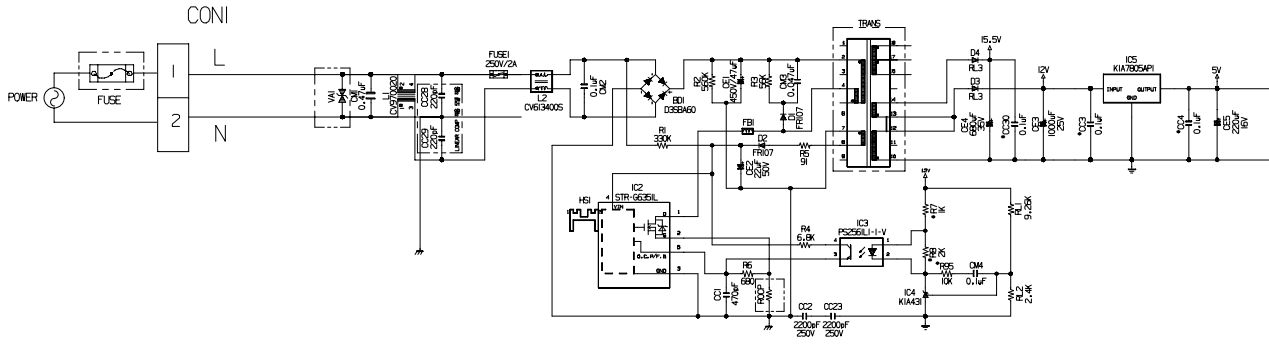
1. The Test mode allows checking the PCB and the function of the product as well as finding out the defective part in case of an error.
2. The test mode is operated by pressing test button at main PCB controller.
3. While in the test mode, the function control button is not recognized, but the recognition tone sounds.
4. After exiting the test mode, be sure to reset by unplugging and then plugging in the appliance.
5. If an error, such as a sensor failure, is detected while in the test mode, the test mode is cleared and the error code is displayed.
6. While an error code is displayed, the test mode will not be activated.

Table 1. Function Test

MODE	OPERATION	FUNCTION	REMARKS
TEST1	Push test button one time at main PCB controller.	1) operation of the COMPRESSOR and FAN(Freezer/Condenser/Icing) 2) Stepping DAMPER OPEN 3) Defrosting HEATER OFF 4) DISPLAY LED all ON	
TEST2	Push Test button one in TEST PCB MODE1.	1) operation of the COMPRESSOR and FAN(Freezer/Condenser/Icing) 2) Stepping DAMPER CLOSE 3) Defrosting HEATER OFF 4) DISPLAY LED shows "22"	
TEST3	Push Test button one in TEST PCB MODE2.	1) The COMPRESSOR and the FAN(Freezer/Condenser/Icing) OFF 2) Stepping DAMPER CLOSE 3) Defrosting HEATER ON 4) DISPLAY LED shows "33"	Reset if the Temperature of the Defrosting Sensor is 46°F(8°C)or more.
RESET	Push Test button one in TEST PCB MODE3 .	Reset to the previously setting Before TEST MODE.	The compressor will Start after a 7-minute Delay.

10-2 PCB FUNCTION

10-2-1 Power Circuit



The secondary part of the TRANSFORMER is composed of the power supply for the display, the BLDC FAN Motor drive (15.5 V), the relay drive (12 Vdc) and the MICOM and IC (5 Vdc).

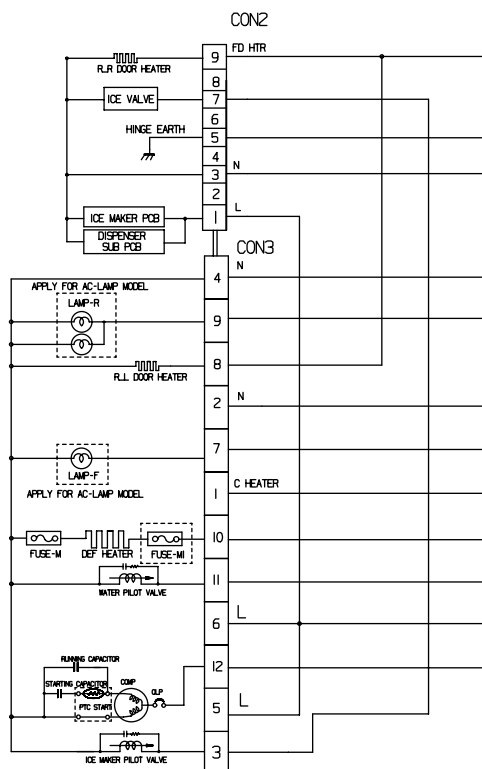
The voltage for each part is as follows:

VA1 is a part for preventing over voltage and noise. When 230V or higher power is applied, the inside elements are short-circuited and broken, resulting in blowout of the fuse in order to protect the elements of the secondary part of the TRANSFORMER.

PART	VA 1	CE 3	CE 4	CE 5
VOLTAGE	240 Vac	12 Vdc	15.5 Vdc	5 V

10-2-2 Load / Fan & Open Door Detection Circuit

1. Load Drive Condition Check



To measure outputs of the control board, check voltages between the pins for the following components:

Circuit	Pin Number	Pin Number	Output Voltage
I/Maker Pilot Valve	Con3 Pin3	Con3 Pin2	240 Vac
R/R Door, R/L Door Heater	Con3 Pin8	Con3 Pin2	240 Vac
Def Heater	Con3 Pin10	Con3 Pin2	240 Vac
Water Pilot Valve	Con3 Pin11	Con3 Pin2	240 Vac
Compressor	Con3 Pin12	Con3 Pin2	240 Vac

2-1. APPLY For AC Lamp Model(Optional)

LAMP-R	Con3 Pin9	Con3 Pin2	240 Vac
LAMP-F	Con3 Pin7	Con3 Pin2	240 Vac

2-2. Freezing compartment fan

	Pin2 & 3 of con4
MOTOR OFF	2V or less
MOTOR ON	13V~15V

2-3. Machine compartment fan

	Pin8 & 9 of con4
MOTOR OFF	2V or less
MOTOR ON	10V~14V

2-4. Icing compartment fan

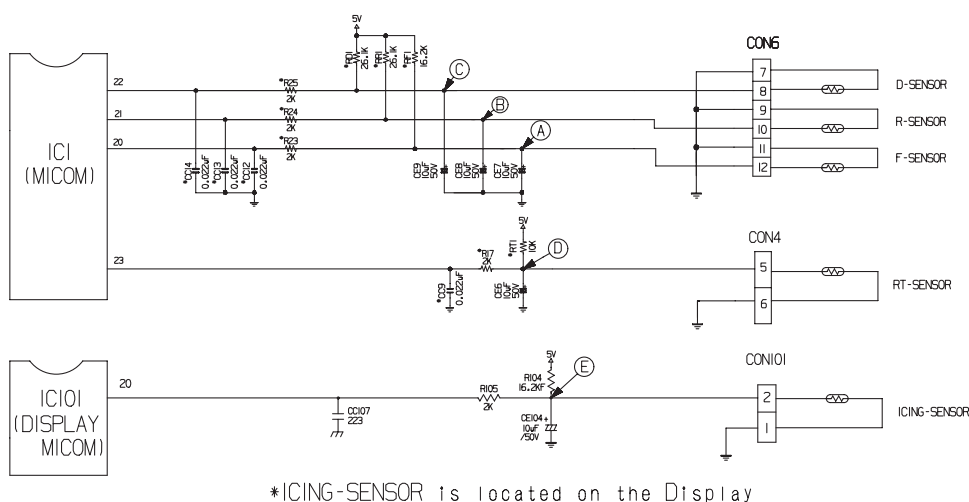
	Pin5 & 6 of con4
MOTOR OFF	2V or less
MOTOR ON	10V~14V

3. Open Door Detection Circuit Check



Freezer/ Refrigerator Door	Measurement Location	Pin 11 & 12 of con4 Ref.Door Pin 5 & 6 of con6 Fre.Door
	Closed	5 V
	Open	0V

10-2-3 Temperature Sensor Circuit



*ICING-SENSOR is located on the Display

The upper circuit reads refrigerator temperature, freezer temperature, Icing sensor temperature and defrost sensor temperature for defrosting and the indoor temperature for compensating for the surrounding temperature into MICOM. Opening or short state of each temperature sensor are as follows:

SENSOR	CHECK POINT	NORMAL (-30°C ~ 50°C)	SHORT-CIRCUITED	OPEN
Freezer sensor	POINT ㉠ Voltage	0.5 V ~ 4.5 V	0 V	5 V
Refrigerator sensor	POINT ㉢ Voltage			
Defrosting sensor	POINT ㉣ Voltage			
Room Temperature sensor	POINT ㉤ Voltage			
Icing sensor	POINT ㉥ Voltage			

9-3 RESISTANCE SPECIFICATION OF SENSOR

TEMPERATURE	RESISTANCE OF FREEZER/ICING SENSOR	RESISTANCE OF REFRIGERATOR & DEFROST SENSOR & ROOM SENSOR
- 20 °C	22.3 KΩ	77 KΩ
- 15 °C	16.9 KΩ	60 KΩ
- 10 °C	13.0 KΩ	47.3 KΩ
- 5 °C	10.1 KΩ	38.4 KΩ
0 °C	7.8 KΩ	30 KΩ
+ 5 °C	6.2 KΩ	24.1 KΩ
+ 10 °C	4.9 KΩ	19.5 KΩ
+ 15 °C	3.9 KΩ	15.9 KΩ
+ 20 °C	3.1 KΩ	13 KΩ
+ 25 °C	2.5 KΩ	11 KΩ
+ 30 °C	2.0 KΩ	8.9 KΩ
+ 40 °C	1.4 KΩ	6.2 KΩ
+ 50 °C	0.8 KΩ	4.3 KΩ

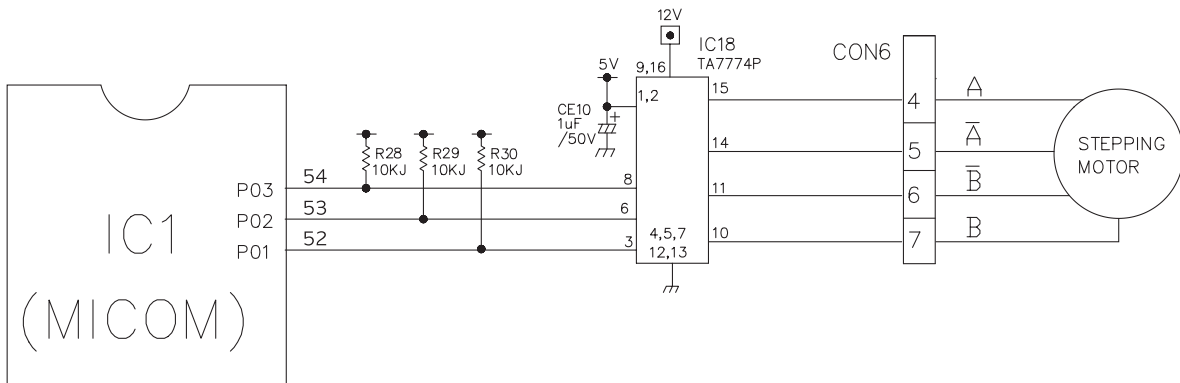
- The resistance of the SENSOR has a $\pm 5\%$ tolerance.
- Measure the resistance of the SENSOR after leaving it for over 3 minutes in the measuring temperature.
This delay is necessary due to sensor response speed.

10-2-4 Refrigeration Compartment Stepping Motor Damper Circuit

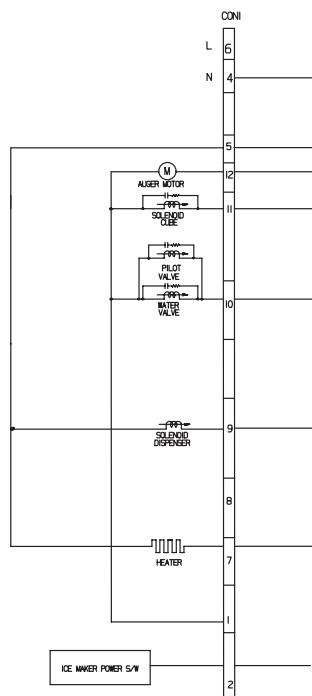
A reversible DC motor is used to open and close the damper.

To open the damper, push test button once.

To close the damper, push test button twice.

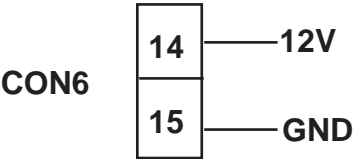


10-2-5 Dispenser Drive Circuit



Circuit	Pin Number	Pin Number	Output Voltage
Auger Motor	Con1 Pin12	Con1 Pin4	115 VAC
Solenoid Cube	Con1 Pin11	Con1 Pin4	115 VAC
Pilot/ Water Valve	Con1 Pin10	Con1 Pin4	115 VAC
Solenoid Dispenser	Con1 Pin9	Con1 Pin4	115 VAC
Heater	Con1 Pin7	Con1 Pin4	115 VAC

9-2-6 LED in Refrigerator/Freezer room (Apply for LED Model) (Optional)



Circuit	Pin Number	Pin Number	Output Voltage
LED Module	Con6 Pin14	Con6 Pin15	12 VDC

10-3 TROUBLESHOOTING

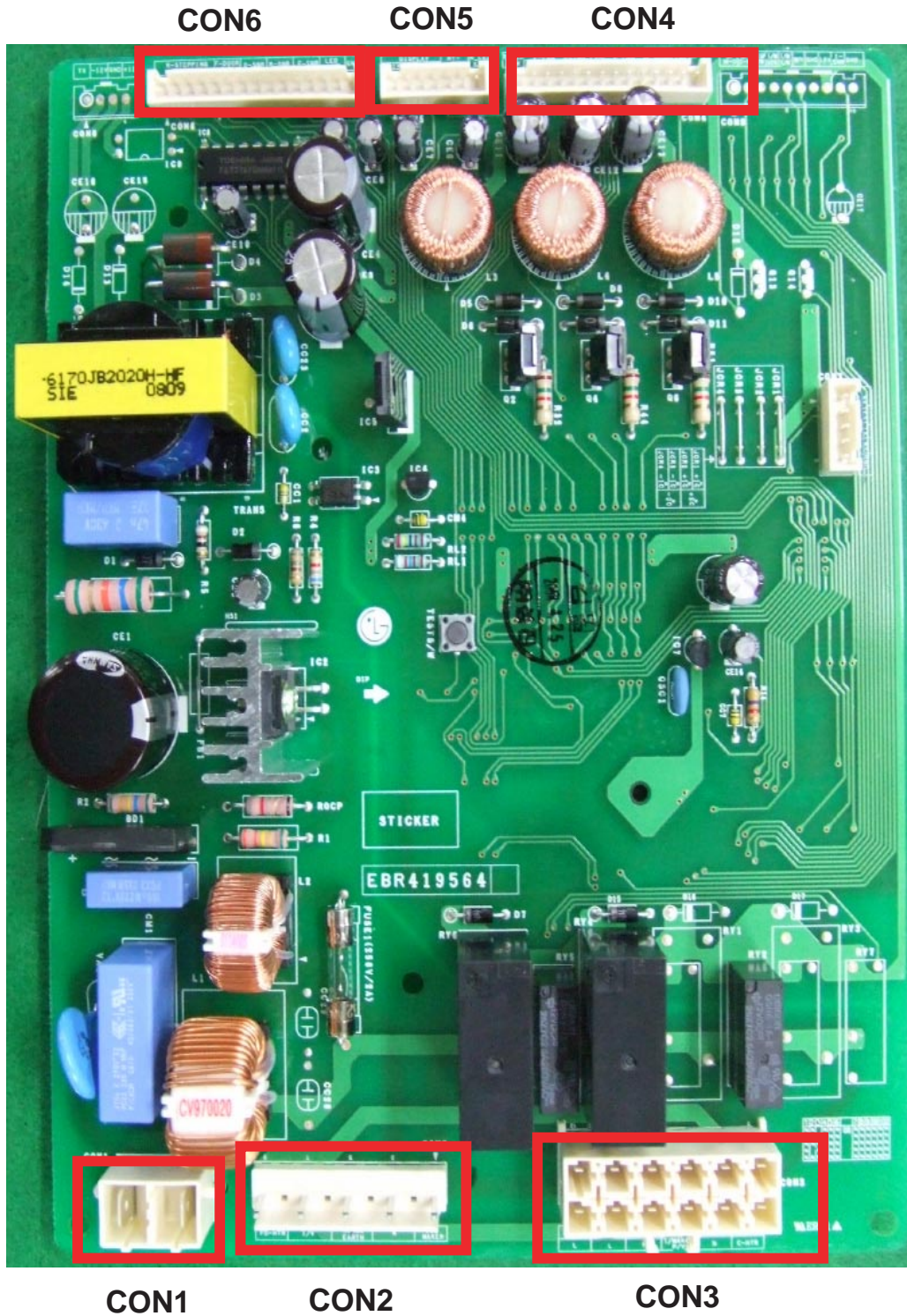
PROBLEM	INDICATED BY	CHECK	CHECKING METHOD	CAUSE	SOLUTION
POWER SOURCE is poor.	1. The whole	1. FREEZER/ REFRIGERATOR.	Check if FREEZER/REFRIGERATOR DOOR IS OPEN and check display.	POWER SOURCE is poor.	Replace Main PWB
	2. DISPLAY LED	2. If LAMP is dim.	Check visually.	Applied voltage error.	Replace Main PWB
		3. The connection of the MAIN PWB CONNECTOR.	Check connection of CONNECTOR.	CONNECTOR connection is poor.	Reconnect CONNECTOR
				TRANS FUSE is open.	Replace Main PWB
COOLING is poor.	NO COOLING.	1. If the COMPRESSOR operate.	USE TEST MODE1 (forced COOLING). If less than 7 minutes pass after compressor shuts off, don't press the KEY and wait.	COMPRESSOR locked or blocked.	Replace OLP, PTC.
				OLP, PTC is poor. COMPRESSOR RELAY is poor.	Replace MAIN PWB.
				THE CONNECTING WIRE is poor.	Check the connection of the black wire of the MAIN PWB CONNECTOR (CON3).
		2. If refrigerant is leaking.	Measure the amount of frost sticking on EVAPORATOR and the surface temperature of the condenser pipe.	Refrigerant leakage.	Replace the leaking part and replace any lost refrigerant.
		FREEZER TEMPERATURE is incorrect	USE TEST MODE1 (forced COOLING).	FAN MOTOR is poor.	Replace the FAN MOTOR.
				CONNECTING WIRE is poor.	Certify the MOTOR and the connection of the black wire of the MAIN PWB CONNECTOR (CON4).
			2. If DEFROSTING is normal.	Check the amount of frost sticking on the EVAPORATOR .	DEFROSTING is poor. See DEFROSTING is poor.
			3. If SENSOR is normal.	of the Refrigerator SENSOR.	SENSOR RESISTANCE is poor. Replace SENSOR.
			4. Door Line contact.	Check the seal when the door is closed.	Door liner damaged. Replace door liner.

PROBLEM	INDICATED BY	CHECK	CHECKING METHOD	CAUSE	SOLUTION
COOLING is poor.	If REFRIGERATOR TEMPERATURE is too low.	1. If FREEZER TEMPERATURE is normal.	Check is FREEZER TEMPERATURE is too low.		Make sure the DOOR is attached.
		2. If amount of cool air from FAN MOTOR is sufficient.	Make sure that the amount and speed of cool air are sufficient by touching the check supplied on the REFRIGERATOR.	FAN MOTOR is poor.	Replace FAN MOTOR.
				Passage of cool air is blocked.	Remove impurities.
				EVA frozen.	See DEFROSTING is poor.
		3. Door Line contact.	Check door seal when door is closed.	Door liner damaged.	Replace Door liner.
DEFROSTING is poor.	NO DEFROSTING.	1. If HEATER emits heat.	USE TEST MODE3 (forced DEFROSTING).	HEATER disconnection.	Replace HEATER.
				TEMPERATURE FUSE disconnection.	Replace TEMPERATURE FUSE.
				Connection is poor.	Check EVAPORATOR connection and wire of MAIN PWB CONNECTOR.
				DEFROST-SENSOR is poor.	Replace DEFROST-SENSOR.
				HEATER RELAY is poor.	Replace RY4 of MAIN PWB.
		2. If DRAIN PIPE is blocked.	Check DRAIN PIPE.	DRAIN PIPE is blocked.	Remove ice and impurities.
					Check HEATER PLATE resistance.
		3. If ice remains after DEFROSTING.	Make sure that DEFROST SENSOR is connected.	Connection is poor.	Reassemble the DEFROST-SENSOR.
			Make sure that FREEZER /REFRIGERATOR DOOR is closed.	DOOR does not close properly.	Reassemble DOOR. Replace GASKET.

10-4 MAIN PWB ASSEMBLY AND PARTS LIST

10-4-1 Main PWB Assembly

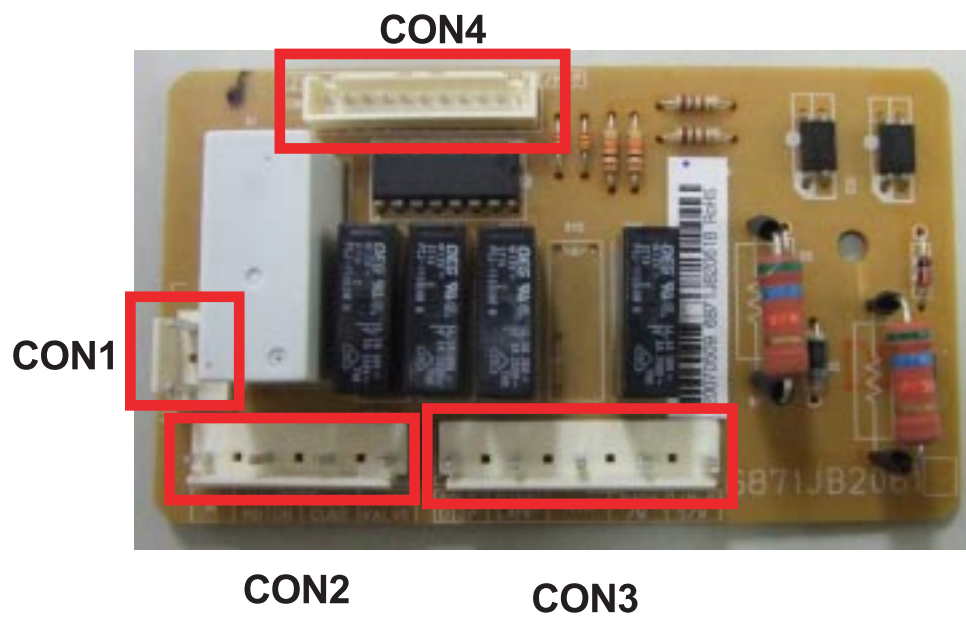
EBR419564



10-4-2 Dispenser Drive PWB Assembly



Display PWB



Dispenser PWB



REPAIR PARTS LIST

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795.78779.801
795.78783.801
795.78789.801

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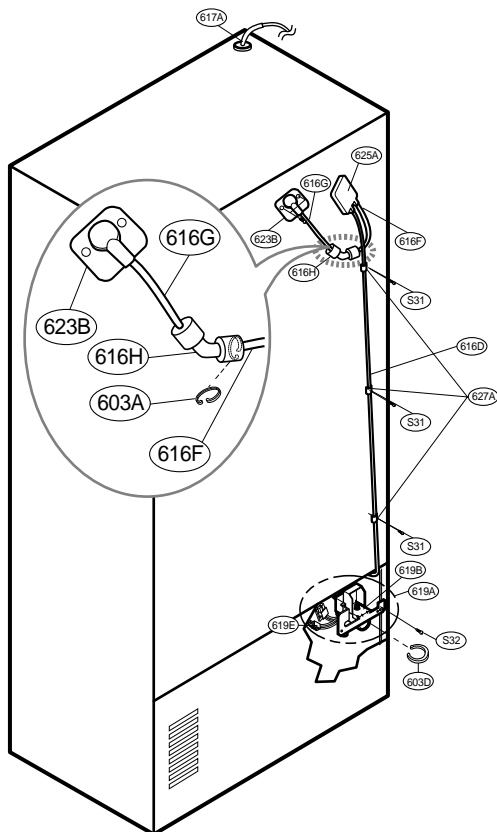
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VALVE & WATER TUBE PARTS

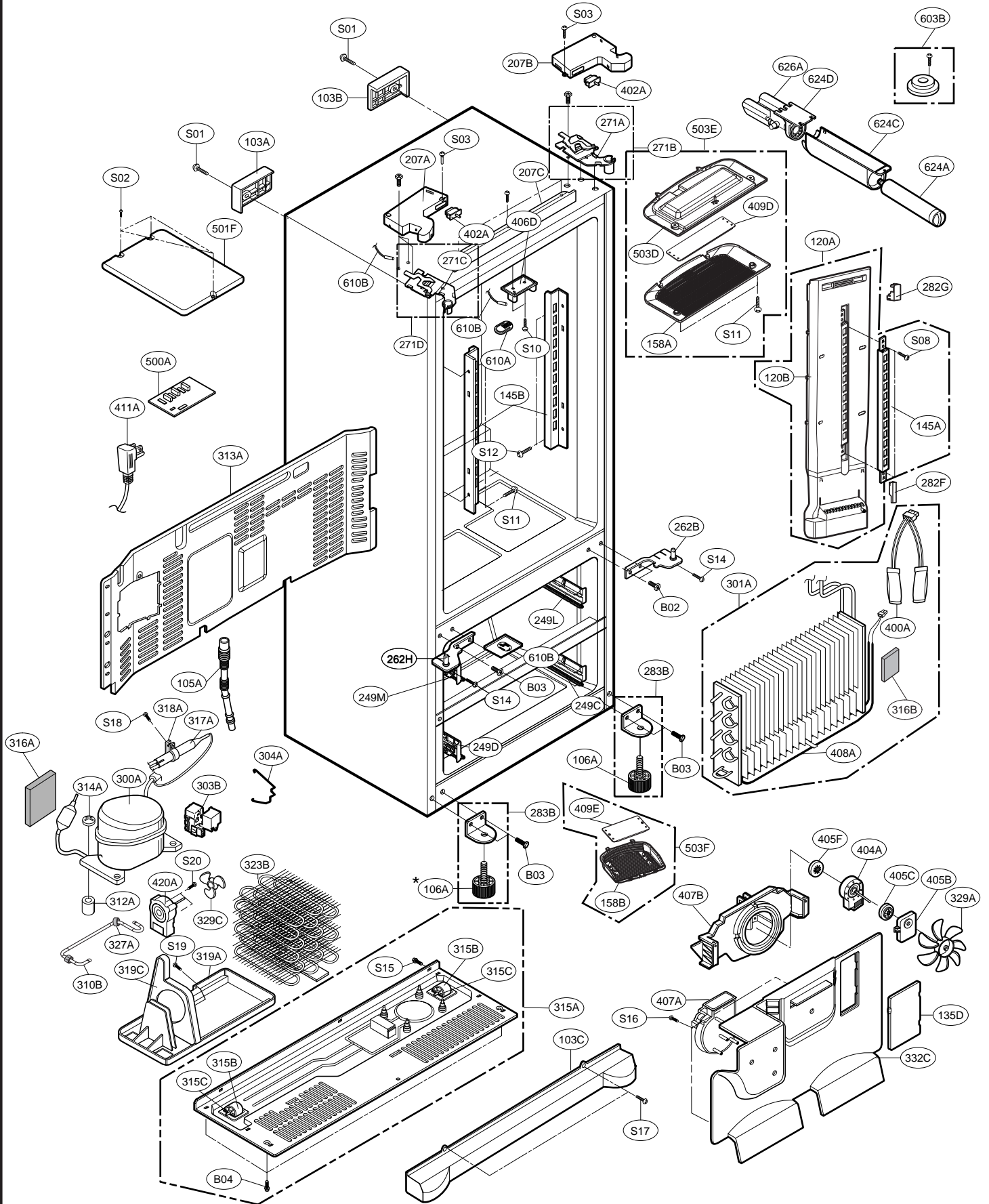


Loc NO.	787*3(ST)	787*9(WB)	Desc
603A	4004JA3002A	4004JA3002A	Clip
603D	4930JA3091A	4930JA3091A	Holder, Bracket
616D	5210JA3005L	5210JA3005L	Tube, Plastic
616F	5210JA3004U	5210JA3004U	Tube, Plastic
616G	5210JA2010B	5210JA2010B	Tube, Plastic
616H	4932JA3009A	4932JA3009A	Connector, Tube
617A	4970JA3004N	4970JA3004N	Spring
619A	5221JA2011J	5221JA2011J	Valve Assembly, Water
619B	5221JB2010G	5221JB2010G	Valve Assembly, Water
619E	6877JB3036V	6877JB3036V	Drawing, Assembly
623B	5006JJ2009A	5006JJ2009A	Cap, Cover
625A	3550JA2184B	3550JA2184B	Cover, Tube
627A	4930JA3054A	4930JA3054A	Holder, Pipe
S31	4J00415D	4J00415D	Screw, Customized
S32	1SZZJA3022B	1SZZJA3022B	Screw, Customized

CAUTION: Use the part number to order part, not the location number.

CASE PARTS

CAUTION: Use the part number to order part, not the position number.



CASE PARTS

Loc NO.	787*3(ST)	787*9(WB)	Desc
103A	3650JA2061X	3650JA2113N	Hanlde, Rear
103B	3650JA2061W	3650JA2113P	Hanlde, Rear
103C	ACQ55957504	ACQ55957503	Cover Assembly, Lower
105A	5251JA3003D	5251JA3003D	Tube Assembly, Drain
106A	4779JJ2001B	4779JJ2001B	Leg Assembly, Adjust
120A	ADJ36702004	ADJ36702004	Duct Assembly, Multi
120B	MCZ54121501	MCZ54121501	Duct Multi
135D	3551JJ2028A	3551JJ2028A	Cover Assembly, Grille Fan
145A	4930JA2080C	4930JA2080C	Holder, Shelf
145B	4930JA2081C	4930JA2081C	Holder, Shelf
152B	MCK39131501	MCK39131501	Cover, Sensor
158A	MCK38019301	MCK38019301	Cover, Lamp
158B	MCK38015101	MCK38015101	Cover, Lamp
207A	3550JJ1097Q	3550JJ1097E	Cover, Hinge
207B	3550JJ1097R	3550JJ1097F	Cover, Hinge
207C	3806JA2146E	3806JA2146C	Decor Assembly, Case
249C	MEG42234402	MEG42234402	Holder, Rail
249D	MEG42234401	MEG42234401	Holder, Rail
249L	MEG42262302	MEG42262302	Holder, Rail
249M	MEG42262301	MEG42262301	Holder, Rail
262B	4775JJ2017P	4775JJ2017F	Hinge Assembly, Center
262H	4775JJ2017R	4775JJ2017H	Hinge Assembly, Center
271A	4775JJ2014B	4775JJ2014B	Hinge Assembly, Upper
271B	4510JA3004A	4510JA3004A	Lever, Hinge
271C	4775JJ2014A	4775JJ2014A	Hinge Assembly, Upper
282F	5006JA3111A	5006JA3111A	Cap, Duct
282G	MBL38019501	MBL38019501	Cap, Duct
283B	4774JJ3002A	4774JJ3002A	Hinge, Lower
300A	2521JA1006N	2521JA1006N	Compressor, Set Assembly
301A	5421JJ1003B	5421JJ1003B	Evaporator Assembly
303C	EBG44308702	EBG44308702	Thermistor Assembly, PTC
304A	AGM30382211	AGM30382211	Clamp
310B	5201JJ1010V	5201JJ1010V	Pipe Assembly,Joint
312A	5040JA3071A	5040JA3071A	Demper, Compressor
313A	3551JJ2018A	3551JJ2018A	Cover Assembly, Machinery(Rear)
314A	4620JA3015A	4620JA3015A	Stopper, Compressor
315A	3103JJ1001H	3103JJ1001H	Base Assembly, Compressor
315B	4580JJ3001A	4580JJ3001A	Roller
315C	1PZZJA3013B	1PZZJA3013B	Pin, Common
316A	5072JA3003F	5072JA3003F	Damper, Noise
316B	5072JA3003B	5072JA3003B	Damper, Noise
317A	5851JA2008U	5851JA2008U	Drier Assembly
318A	4930JA3034A	4930JA3034A	Holder, Drier
319A	MJS37355401	MJS37355401	Tray, Drip
319C	MEA42257901	MEA42257901	Guide, Fan

CAUTION: Use the part number to order part, not the position number.

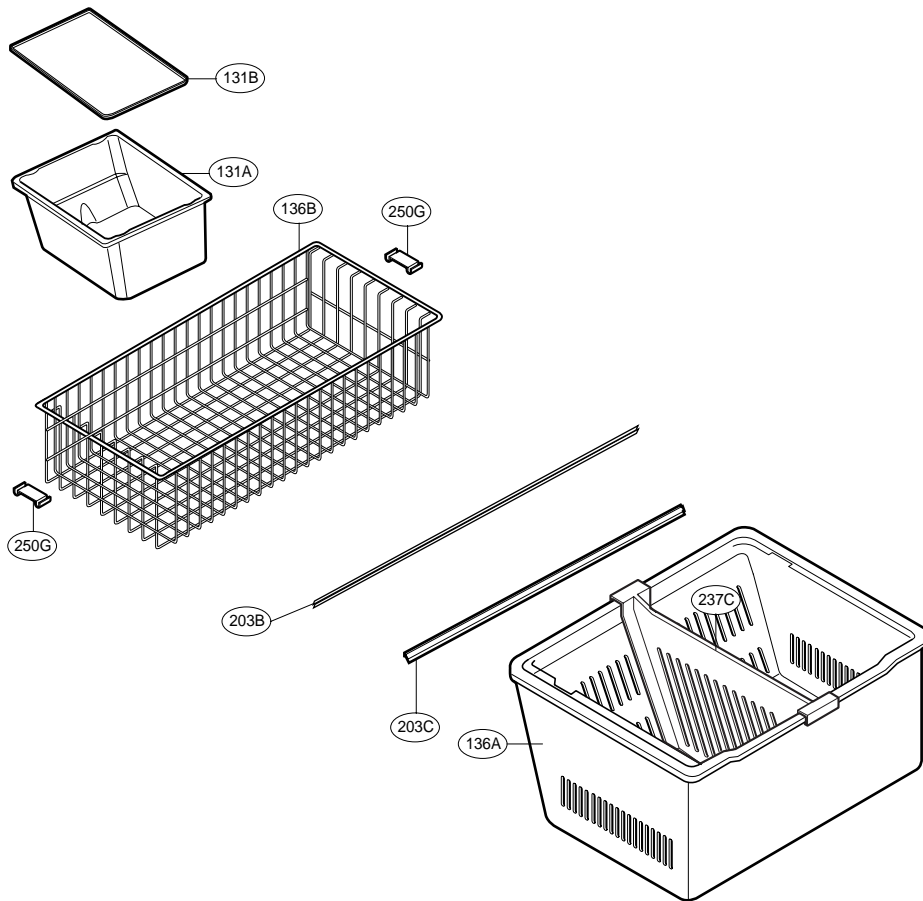
CASE PARTS

Loc NO.	787*3(ST)	787*9(WB)	Desc
323B	ACG36653801	ACG36653801	Condenser Assembly, Wire
327A	4J03020A	4J03020A	Damper, Pipe
328A	4J03020A	4J03020A	Damper, Pipe
329A	5901JA1021A	5901JA1021A	Fan Assembly
329C	ADP36665701	ADP36665701	Fan Assembly
332C	AEB36999401	AEB36999401	Grille Assembly, Fan
400A	6615JB2005H	6615JB2005H	Controller Assembly
402A	6600JB3007K	6600JB3007K	Switch, Push Button
404A	4681JK1004E	4681JK1004E	Motor, DC
405B	4810JJ2005A	4810JJ2005A	Bracket, Motor
405C	5040JA2009B	5040JA2009B	Damper,Motor Support
405F	5040JA2004B	5040JA2004B	Damper,Motor Support
407A	ADJ36762901	ADJ36762901	Duct Assembly,Connector
407B	4810JJ0003A	4810JJ0003A	Bracket,Motor
408A	5300JK1005D	5300JK1005D	Heater,Sheath
409D	EAV43060804	EAV43060804	LED Assembly
409E	EAV43060803	EAV43060803	LED Assembly
411A	6411JB1042L	6411JB1042L	Power Cord Assembly
420A	4681JB1029D	4681JB1029D	DC Motor Assembly
500A	6871JB1411J	6871JB1411J	PCB Assembly, MAIN
501F	3551JA2144C	3551JA2144C	Cover Assembly, PCB
503D	MBN38018601	MBN38018601	Case, Lamp
503E	ACQ33676502	ACQ33676502	Cover Assembly,Lamp
603B	4930JA3091A	4930JA3091A	Holder,Bracket
610A	3550JA2247A	3550JA2247A	Cover, Sensor
610B	MCK39131501	MCK39131501	Cover, Sensor
624A	5231JA2006A	5231JA2006A	Filter Assembly,Water
624C	3550JD1128B	3550JD1128B	Cover,Filter
624D	5230JA2003A	5230JA2003A	Filter,Head
626A	3550JA2279A	3550JA2279A	Cover,Filter
B01	4000W4A003A	4000W4A003A	Screw,Customized
B02	1STZJA3004G	1STZJA3004G	Screw,Customized
B03	1STZJA3004F	1STZJA3004F	Screw,Customized
B04	1BZZJA2002A	1BZZJA2002A	Bolt,Common
S01	4J00415D	4J00415D	Screw,Customized
S02	4J00415D	4J00415D	Screw,Customized
S03	4J00415D	4J00415D	Screw,Customized
S08	3J05696W	3J05696W	Screw,Customized
S10	1SBZJA3004L	1SBZJA3004L	Screw,Customized
S11	3J05696W	3J05696W	Screw,Customized
S12	3J05696W	3J05696W	Screw,Customized
S14	1SZZJJ3010C	1SZZJJ3010D	Screw,Customized
S15	4J00415D	4J00415D	Screw,Customized
S16	4J00415D	4J00415D	Screw,Customized
S17	4J00415D	4J00415D	Screw,Customized
S18	4J00415D	4J00415D	Screw,Customized
S20	1SZZJA3016A	1SZZJA3016A	Screw,Customized

CAUTION: Use the part number to order part, not the position number.

FREEZER PARTS

CAUTION: Use the part number to order part, not the position number.

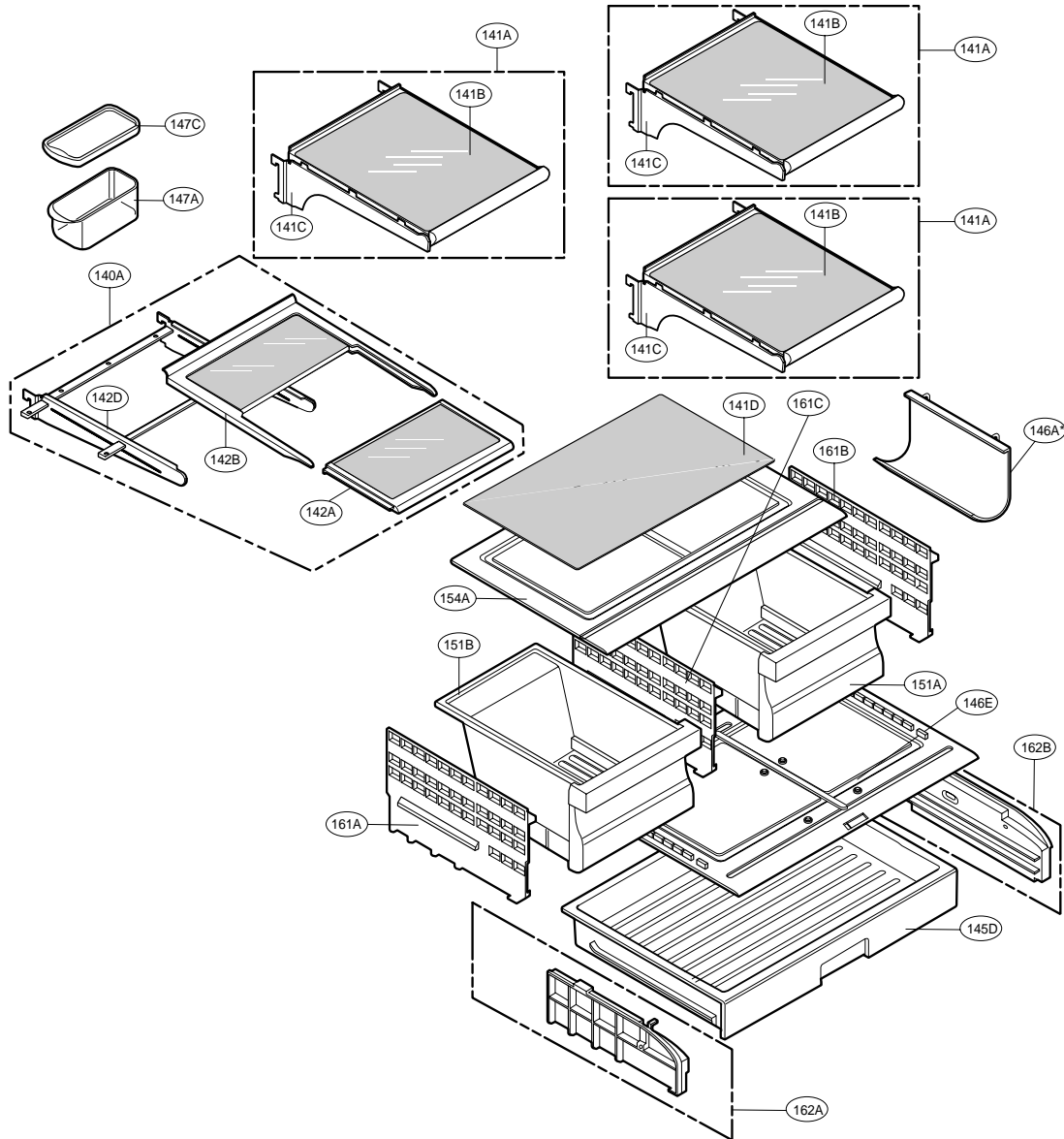


Loc NO.	787*3(ST)	787*9(WB)	Desc
131A	MJS42270801	MJS42270801	Tray, Freezer
131B	MJS42266201	MJS42266201	Tray, Quick Freezer
136A	AJP36764801	AJP36764801	Tray Assembly, Drawer
136B	MJS42262501	MJS42262501	Tray, Drawer
203B	MDS42267901	MDS42267901	Gasket, Door
203C	MDS42267902	MDS42267902	Gasket, Door
237C	MEA42263801	MEA42263801	Guide,Drawer
250G	MJH48434601	MJH48434601	Support, Holder

CAUTION: Use the part number to order part, not the position number.

REFRIGERATOR PARTS

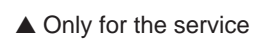
CAUTION: Use the part number to order part, not the position number.



Loc NO.	787*3(ST)	787*9(WB)	Desc
140A	AHT36706703	AHT36706703	Shelf Assembly, Refrigerator
141A	AHT36764303	AHT36764303	Shelf Assembly, Refrigerator
141B	AHT36968103	AHT36968103	Shelf Assembly, Refrigerator
141C	5207JJ2012F	5207JJ2012F	Shelf Assembly, Net
141D	4890JJ1007Y	4890JJ1007Y	Shelf, Glass
142A	AHT36963703	AHT36963703	Shelf Assembly, Refrigerator
142B	AHT36963801	AHT36963801	Shelf Assembly, Refrigerator
142D	5027JJ2012H	5027JJ2012H	Shelf Assembly, Net
145D	MJS42244701	MJS42244701	Tray, Fresh Room
146A	J469-00030A	J469-00030A	Wine Rock (Only 7878* Model)
146E	ACQ36701703	ACQ36701703	Cover Assembly, Tray
147A	5074JJ1016A	5074JJ1016A	Bucket, Dairy
147C	3550JJ1084A	3550JJ1084A	Cover, Bucket
151A	AJP36702104	AJP36702104	Tray Assembly, Vegetable
151B	AJP36702105	AJP36702105	Tray Assembly, Vegetable
154A	ACQ36701102	ACQ36701102	Cover Assembly, TV
161A	AEC36906401	AEC36906401	Guide Assembly, TV
161B	AEC36906402	AEC36906402	Guide Assembly, TV
161C	AEC36702202	AEC36702202	Guide Assembly, Rail
162A	AEC36702301	AEC36702301	Guide Assembly, Rail
162B	AEC36702302	AEC36702302	Guide Assembly, Rail

CAUTION: Use the part number to order part, not the position number.

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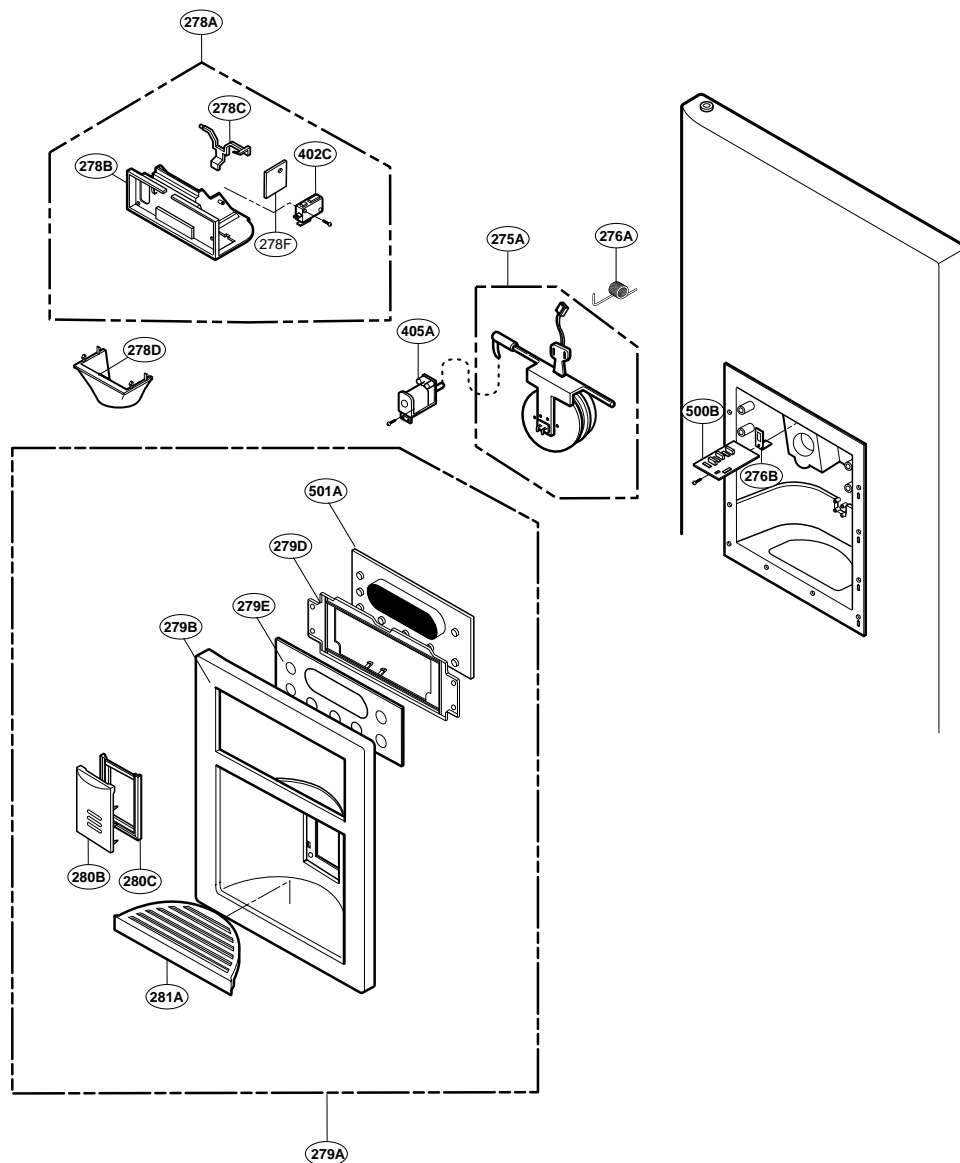


DOOR PARTS

Loc NO.	787*3(ST)	787*9(WB)	Desc
200A	ADC57512002	ADC57512003	Door Assembly, Freezer (Upper)
200B	ADC57512102	ADC57512103	Door Assembly, Freezer (Lower)
201A	ADD56733801	ADD56733805	Door Foam Assembly, Freezer (Upper)
201B	ADD56733901	ADD56733905	Door Foam Assembly, Freezer (Lower)
203A	4987JA1022X	ADX62356402	Gasket, Doo
203B	4987JA1022Y	ADX62356403	Gasket, Door
212D	AED37133201	ADX62356403	Handle Assembly, Freezer
212G	3846JD1019A	3846JD1019B	Name, Plate
230A	ADC55872811	ADD36700611	Door Assembly, Refrigerator(Right)
230B	ADC57728801	ADC57728301	Door Assembly, Refrigerator(Left)
231A	ADD57728505	ADC55872812	Door Foam Assembly, Refrigerator
231B	ADD57728901	ADC57728803	Door Foam Assembly, Refrigerator
233A	4987JJ2002E	4987JJ2002C	Gasket Assembly, Door
233B	4987JJ2002F	4987JJ2002D	Gasket Assembly, Door
233C	3551JJ2030B	3551JJ2030B	Cover Assembly, Front
233D	3551JJ2030A	3551JJ2030A	Cover Assembly, Front
234A	4430JJ2004A	4430JJ2004A	Cam, Shaft
234B	4430JJ2004B	4430JJ2004B	Cam, Shaft
234C	4931JJ2002E	4931JJ2002E	Holder Assembly, Gasket
234D	4931JJ2002F	4931JJ2002F	Holder Assembly, Gasket
241A	AAP33683603	AAP33683603	Basket Assembly, Door
241B	MAN38142901	MAN38142901	Basket, Door
241C	MAN39723202	MAN39723202	Basket, Window
241D	AAP36817401	AAP36817401	Basket Assembly, Door
241F	AAP36817601	AAP36817601	Basket Assembly, Door
241G	AAP33726606	AAP33726606	Basket Assembly, Door
243A	4620JJ3006D	4620JJ3006D	Stopper, Door
243B	4620JJ2009A	4620JJ2009A	Stopper, Door
243C	J326-00012A	J326-00012A	Bush
244A	AED37083001	AED37083002	Handle Assembly, Refrigerator
249A	ACJ50677703	ACJ50677703	Connector, Assembly
249B	ACJ50677704	ACJ50677704	Connector, Assembly
249E	MGT42902801	MGT42902801	Rail, Slide
249F	MGT42902802	MGT42902802	Rail, Slide
249J	MCD42341601	MCD42341601	Connector, Rail
249K	MCD42341602	MCD42341602	Connector, Rail
250A	MAK39123901	MAK39123901	Bar
250B	4470JA2007A	4470JA2007A	Gear, Ice
262C	4350JA3005B	4350JA3005B	Ring
312B	MCK42342101	MCK42342101	Cover,Front
603C	4004JA3002A	4004JA3002A	Clip
603D	4930JA3091A	4930JA3091A	Holder,Bracket
615A	4838JA2003B	4838JA2003B	Tank, Water
616J	MCD38280801	MCD38280801	Connector, Tube
619B	5221JB2010G	5221JB2010G	Valve Assembly,Water
B06	4620JJ2010C	4620JJ2010C	Stopper,Handle
S25	1SZZJA3011D	1SZZJA3011D	Screw,Customized

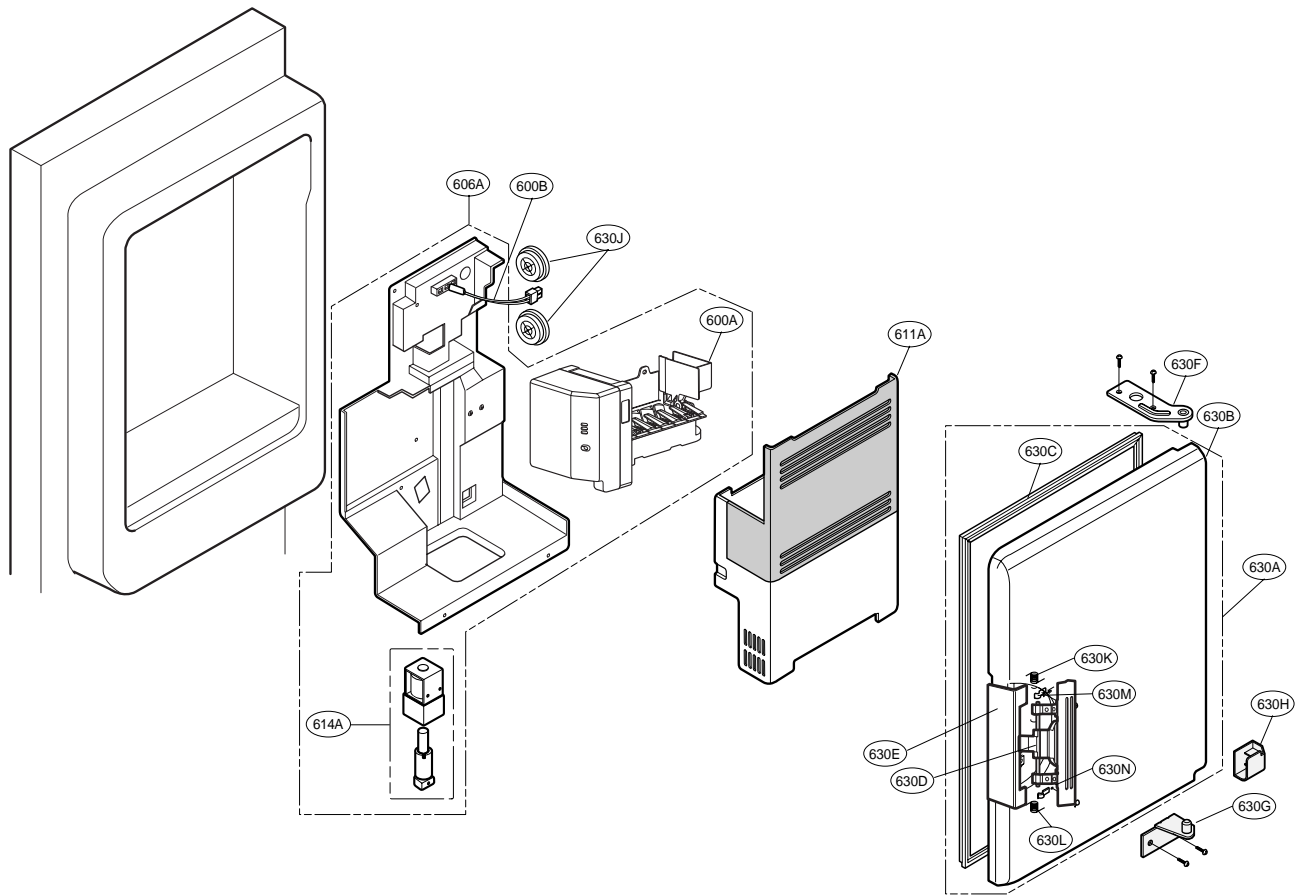
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DISPENSER PARTS



Loc NO.	787*3(ST)	787*9(WB)	Desc
275A	5007JA3006V	5007JA3006V	Cap Assembly, Duct
276A	4970JA3011C	4970JA3011C	Spring, Lever
276B	4930JA3043A	4930JA3043A	Holder, Lever
278A	3017JA2008H	3017JA2008C	Funnel Assembly
278B	MDQ42340402	3210JA1072C	Frame, Funnel
278C	4510JA2022A	4510JA2022A	Lever, Dispenser
278D	MDR42340501	MDR42340504	Funnel
278F	6871JB2074A	6871JB2074A	PCB Assembly, Display
279A	ACQ36820505	ACQ36820504	Cover Assembly, Dispenser
279B	MCK42340001	MCK42340001	Cover, Dispenser
279D	3550JB1001A	3550JB1001A	Cover, Display
279E	MCR42340901	MCR42340901	Décor, Cover Display
280B	4930JA2074B	4930JA2074B	Holder, Button
280C	5020JA2040E	5020JA2040L	Button, Lever
281A	MCR42338202	MCR42338201	Décor, Drain
402C	6600JB3001E	6600JB3001E	Switch, Micro
405A	6421JB2001M	6421JB2001M	Solenoid, Reversing, Valve
500B	6871JB2061B	6871JB2061B	PCB Assembly, Sub
501A	6871JB1451B	6871JB1451B	PCB Assembly, Display

ICE MAKER & ICE BANK PARTS



Loc NO.	787*3(ST)	787*9(WB)	Desc
600A	AEQ36756901	AEQ36756901	Ice Maker Assembly, Kit
600B	6500JB1008A	6500JB1008A	Sensoe, Temperature
606A	4681JA1006D	4681JA1006D	Motor, AC
611A	5075JA1044E	5075JA1044E	Bucket Assembly, Ice
614A	6421JA3001N	6421JA3001N	Solenoid Assembly
630A	ADC33751102	ADC33751102	Door Assembly, Freeze Room
630B	ADD33178702	ADD33178702	Door Foam Assembly
630C	4987JA2012B	4987JA2012B	Gasket Assembly,Door
630D	MEB49049002	MEB49049002	Handle, Home Bar
630E	MCR42600501	MCR42600501	Décor, Handle
630F	4775JA2101A	4775JA2101A	Hinge Assembly, Upper
630G	4775JA2102A	4775JA2102A	Hinge Assembly, Lower
630H	MCK38202501	MCK38202501	Cover, Home Bar
630J	4987JA3025K	4987JA3025K	Gasket Assembly,Door
630K	4970JA3044A	4970JA3044A	Spring
630L	4970JA3045A	4970JA3045A	Spring
630M	4860JA3010B	4860JA3010B	Clamp
630N	4860JA3010A	4860JA3010A	Clamp